

The Narragansett Electric Company
d/b/a National Grid

2014 GAS COST RECOVERY

Testimony and Attachments of:

Elizabeth D. Arangio
Ann E. Leary

September 2, 2014

Submitted to:

Rhode Island Public Utilities Commission
RIPUC Docket No. 4520

Submitted by:

nationalgrid

Testimony of
Elizabeth D. Arango

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
2014 GAS COST RECOVERY FILING
WITNESS: ELIZABETH D. ARANGIO
SEPTEMBER 2, 2014**

DIRECT TESTIMONY

OF

ELIZABETH D. ARANGIO

September 2, 2014

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1 I. Introduction

2 Q. Please state your name and business address.

3 A. My name is Elizabeth Danehy Arangio. My business address is 40 Sylvan Road,
4 Waltham, Massachusetts 02451.

5

6 Q. What is your position and responsibilities?

7 A. I am the Director of Gas Supply Planning with responsibility for the resource
8 portfolio of the New England local gas distribution companies (LDC's) that
9 operate as Boston Gas Company (Boston Gas), Colonial Gas Company (Colonial)
10 and The Narragansett Electric Company (Narragansett or Company) each d/b/a
11 National Grid. In addition to the New England portfolios, I am also responsible
12 for gas supply planning for the resource portfolios of The Brooklyn Union Gas
13 Company, KeySpan Gas East Corporation and Niagara Mohawk Power
14 Corporation, all in New York. For purposes of this testimony, references to the
15 Company relate solely to The Narragansett Electric Company.

16

Q. Please describe your educational background and professional experience.

18 A. I graduated from the University of Massachusetts in 1991 with a Bachelor of
19 Business Administration. In 1995, I graduated from Bentley College with a
20 Master of Business Administration. From 1991 to 1994, I worked as a Gas
21 Accounting Analyst in the Marketing Operations Department at Algonquin Ga

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1 Transmission Company. In 1994, I joined Boston Gas Company as a Gas Supply
2 Analyst. In 1997, I was promoted to Group Leader Transportation Services, with
3 responsibility for managing all activities associated with the Customer-Choice
4 program. In 1998, I was promoted to Director of Gas Acquisition and
5 Transportation Services with responsibility for the administration of the
6 Company's gas-resource portfolio and Customer-Choice program in
7 Massachusetts and, as of 2000, the resource portfolio of EnergyNorth Natural
8 Gas, Inc in New Hampshire. In February 2004, I assumed the additional
9 responsibility of gas supply planning for the former KeySpan Corporation New
10 York and Long Island resource portfolios. Following the acquisition of KeySpan
11 Corporation by National Grid, plc, I was named to my current position with the
12 added responsibility for the National Grid gas resource portfolios in upstate New
13 York and in Rhode Island.

14

15 **Q. Are you a member of any professional organizations?**

16 A. I am a member of the Northeast Gas Association and the New England-Canada
17 Business Council.

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- 1 **Q. Have you previously testified before the Rhode Island Public Utilities**
2 **Commission (PUC)?**
- 3 A. Yes. I have recently testified before the Rhode Island Public Utilities
4 Commission (PUC) in support of National Grid's Annual Gas Cost Recovery
5 (GCR) and the interim 2013/2014 Gas Recovery Filing (Interim GCR) in Docket
6 No. 4436, the Natural Gas Portfolio Management Plan (NGPMP) in Docket No.
7 4038, and the Long Range Gas Supply plan. In the past, I have testified numerous
8 times before the Massachusetts Department of Public Utilities, and the New
9 Hampshire Public Utilities Commission. In addition I have also presented
10 information to the State of New York Department of Public Service Commission.
11
- 12 **Q. What is the purpose of your testimony in this proceeding?**
- 13 A. My testimony provides support for the estimated gas costs, assignments of
14 pipeline capacity to marketers and other issues relating to the Company's
15 proposed Gas Cost Recovery (GCR) factors. In addition, my testimony provides
16 a summary of the Company's plans to enter into a Precedent Agreement with
17 Tennessee Gas Pipeline Company, L.L.C. (Tennessee) for interstate pipeline
18 capacity delivered to Rhode Island as part of the Tennessee Northeast Energy
19 Direct Project.

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1 **Q. Are you sponsoring any Attachments?**

2 A. Yes. I am sponsoring the following Attachments:

3 EDA-1 Summary of Projected Gas Costs
4 **CONFIDENTIAL Information**

5
6 EDA-2 Gas Cost Details
7 **CONFIDENTIAL Information**

8
9 EDA-3 NYMEX Strip Comparison

10
11 EDA-4 Assignment of Pipeline Capacity
12 **CONFIDENTIAL Information**

13
14 EDA-5 FT-2 Operational Parameters

15
16 EDA-6 FT-2 Storage Variable Costs

17

18 **II. Projected Gas Costs**

19 **Q. What commodity prices were used to develop the proposed GCR factors?**

20 A. In terms of commodity prices, the proposed GCR factors are based on the
21 following: (1) the NYMEX strip as of the close of trading on July 31, 2014, (2)the
22 expected basis differential to the Henry Hub for each purchase location, and (3)
23 the difference between the futures contract purchases under the Gas Procurement
24 Incentive Plan (GPIP) as of July 31, 2014 and the July 31, 2014 NYMEX strip.

25 The GCR factors also reflect storage and inventory costs as of July 31, 2014, as
26 well as the projected cost of purchasing gas ratably through the remainder of the
27 injection season, as provided for in the NGPMP. Attachment EDA-1 provides a
28 summary of gas costs by major cost categories. Attachment EDA-2 shows the

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1 details of the calculations including the cost detail by supply source and the cost
2 impact of financial hedges.

3

4 **Q. Overall, what are the NYMEX prices for gas supplies projected to be**
5 **purchased during the period of November 1, 2014 through October 31, 2015,**
6 **and how do they compare to last year's prices?**

7 A. Attachment EDA-3 is a graph that compares NYMEX pricing from July 15, 2013
8 utilized in the Company's filing last year to NYMEX pricing from July 31, 2014
9 used in this instant filing. The July 31, 2014 NYMEX strip is on average \$0.082,
10 or 2.1%, higher compared to the July 15, 2013 NYMEX strip during the peak
11 season of November through March. During the off-peak season of April through
12 October, the July 31, 2014 NYMEX strip is on average \$0.170, or 4.3% lower
13 compared to the July 15, 2013 NYMEX strip. Overall the July 31, 2014 NYMEX
14 strip is an average of \$0.065 or 1.6% lower compared to the July 15, 2013
15 NYMEX strip.

16

17 **Q. Please describe how gas costs are calculated.**

18 A. Consistent with prior filings, projected gas costs are calculated using the
19 SENDOUT model to perform a dispatch optimization of the Company's entire
20 portfolio of gas supply, pipeline transportation, underground storage, and peaking
21 supplies. The model uses commodity price, pipeline contract, and storage

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1 information to determine the dispatch of supplies to minimize the cost of supply
2 over the year. The pricing of various pipeline services is based directly on the
3 pipeline tariffs and the rates in effect as of August 1, 2014. For purchases at
4 locations other than the Henry Hub, the model uses the expected basis differential
5 to the Henry Hub prices to determine the expected difference or “basis.”
6

7 **Q. How did the Company categorize the projected gas cost components?**

8 A. For the purpose of this filing gas costs are disaggregated into two components:
9 (1) The Supply Fixed Cost Component and (2) The Supply Variable Cost
10 Component. Each is described below.

11 1. The Supply Fixed Cost Component includes all fixed costs related to the
12 purchase, storage, or delivery of firm gas, including, but not limited to,
13 pipeline and supplier fixed reservation costs, demand charges, and
14 transportation fees.

15 2. The Supply Variable Cost Component includes all variable costs of firm
16 gas, including, but not limited to, commodity costs, taxes on commodity
17 and other gas supply expense incurred to transport supplies, transportation
18 fees, storage commodity costs, taxes on storage commodity, and other gas
19 storage expense incurred to transport supplies, transportation fees, and
20 inventory commodity costs.

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1 A summary of gas costs included in the GCR and disaggregated into these cost
2 components by month for the period November 2014 through October 2015 is
3 shown on Attachment EDA-1.

4

5 **Q. Please describe Attachment EDA-2, pages 1 through 17.**

6 A. Attachment EDA-2 shows the supporting detail for gas costs included in the filing
7 for the period November 2014 through October 2015. The first two pages show
8 the optimized, forecasted sendout by supply source under normal weather from
9 the SENDOUT model, as well as the detailed makeup of supply by pipeline
10 source, storage contract, and peaking facility. The next section, pages 3 through
11 6, shows the calculation of the per-unit-delivered cost for each pipeline path based
12 on the July 31, 2014 NYMEX strip and purchase point basis, including both
13 pipeline variable charges and pipeline fuel losses. Pages 7 through 9 show the
14 calculation of the delivered cost for each path (the price times the quantity).
15 Pages 10 through 14 show the detailed calculation of total fixed costs.

16

17 The cost details for gas injected into and withdrawn from underground storage are
18 shown on pages 15 and 16, while all costs associated with LNG injected into and
19 withdrawn from storage are detailed on page 17. As the Company has yet to
20 contract for LNG supplies for the upcoming 2014/15 year, pricing included in this
21 filing reflects indicative pricing and terms based on the Company's current

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1 contracts with GDF Suez. Charges for the GDF Suez Gas North America
2 contracts have been redacted in the public version of the filing in order to comply
3 with confidentiality terms.

4

5 **Q. How do you calculate the delivered cost for a particular gas supply?**

6 A. On Attachment EDA-2, page 3, the second supply source shown is gas purchased
7 on Tennessee Pipeline in Zone 0, located in South Texas. The calculation for
8 November begins with the \$3.925 NYMEX price, which is then adjusted for basis
9 by subtracting \$0.117 in this case. This reflects the forward basis strip for gas
10 supply in South Texas delivered into Tennessee Pipeline. Next the price is
11 adjusted to reflect the fuel retention percentage of the pipeline, 4.63%, to bring
12 the price to \$3.993. That adjustment is made by dividing the price by one minus
13 the loss factor, or 0.9537, effectively adjusting the commodity price to incorporate
14 the fact that only 95.37% of the supply delivered from the pipeline in South Texas
15 will be delivered to Rhode Island. The pipeline usage fee of 33.59 cents is then
16 added to reflect the cost of transportation on the pipeline, resulting in a delivered
17 cost of \$4.3288 per Dth.

1 **III. Marketer Capacity Assignment**

2 **Q. What transportation paths will be available for assignment to marketers?**

3 A. Attachment EDA-4, page 1, shows the paths and corresponding quantities
4 available for assignment to marketers. In total, the Company has made available
5 32,758 Dth per day of capacity on six different pipeline paths. The volume
6 allocated to the marketers remains the same as provided in the 2013/14 GCR
7 filing.

8 **Q. Please explain the surcharge/credit calculation for each assigned pipeline
9 path?**

10 A. The first step in calculating the adjustment charge for each path starts with
11 calculating the system-average cost. The derivation of the weighted-average
12 pipeline path cost of \$0.4080 per Dth is shown at Attachment EDA-4, page 10.
13 This cost is equal to the sum of the 100% load factor fixed-cost unit value, the
14 system-average unit variable cost (including basis differential) and one (1) year of
15 the marketer reconciliation adjustment represented as a 100% load factor per unit
16 cost. The 100% load factor fixed-cost unit value is \$0.5553 per Dth. The system-
17 average pipeline unit variable cost is -\$0.1545 per Dth. The sum of these
18 components results in a weighted average pipeline cost of \$0.4008 per Dth. The
19 100% load factor per unit cost of \$0.0072 for the marketer reconciliation
20 adjustment is then added to get the total weighted-average pipeline cost of
21 \$0.4080 per Dth.

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1 **Q. Please explain how Attachment EDA-4 illustrates the delivered costs for each**
2 **path released to marketers.**

3 A. The calculations for the delivered cost for each path are similar to those described
4 for the system average. For illustration, the calculation for the first path
5 (Tennessee Zone 1, shown on Attachment EDA-4, page 6) is comprised of a
6 single contract originating in Zone 1 and terminating in Zone 6. Total fixed costs
7 of \$2,515,057 and total variable costs of \$14,798,176 are shown in the far right
8 column of page 6 of Attachment EDA-4. Commodity gas costs of \$13,471,608
9 are subtracted from the total variable costs to arrive at the non-gas variable costs,
10 which include pipeline variable charges and any basis differential associated with
11 the path. The cost of the path equals the sum of the fixed unit cost of \$0.7253 per
12 Dth at 100% load factor plus the non-gas variable unit cost of \$0.3826 per Dth, or
13 \$1.1079 per Dth. The unit cost of \$1.1079 per Dth represents the direct costs
14 incurred by the marketer, which are paid directly to the pipeline by the marketer.
15 Since this cost is \$0.6999 per Dth greater than the system-average, marketers
16 electing this path would be credited \$0.6999 per Dth per day on their monthly
17 invoice from the Company. A summary of the individual path costs and
18 associated credits or surcharges, for which approval is sought, is shown on page 1
19 of Attachment EDA-4.

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1 IV. Gas Supply Portfolio

2 Q. Have there been any changes to the Company's interstate pipeline capacity?

3 A. Yes. The Company has provided a notice of termination effective October 30,

4 2014 to Transcontinental Gas Pipeline Company (Transco) for contract #9081765.

5 This contract for 141 Dths per day of capacity provided access to supplies from

the Gulf of Mexico delivered to the Leidy, Pennsylvania interconnect with

7 Dominion Gas Transmission, which, in turn, feeds the Company's downstream

8 Texas Eastern contract #330844 and Algonquin contract #90106. The

marketplace has evolved such that gas is readily available downstream of Transco

at competitive pricing so that it is no longer necessary to maintain this Transco

contract and incur approximately \$25,000 of annual fixed charges.

13

13 Q. Have there been any changes to the way in which the Company purchases
14 gas?

15 A. Yes. To date, there have been a significant number of projects that have gone into
16 service bringing domestic shale gas from the Marcellus region to market.

17 Construction of gathering systems by producers continues, with the additional

18 production creating more liquidity in the Marcellus and Utica shale basins. The

19 Company's portfolio continues to be situated to take advantage of these

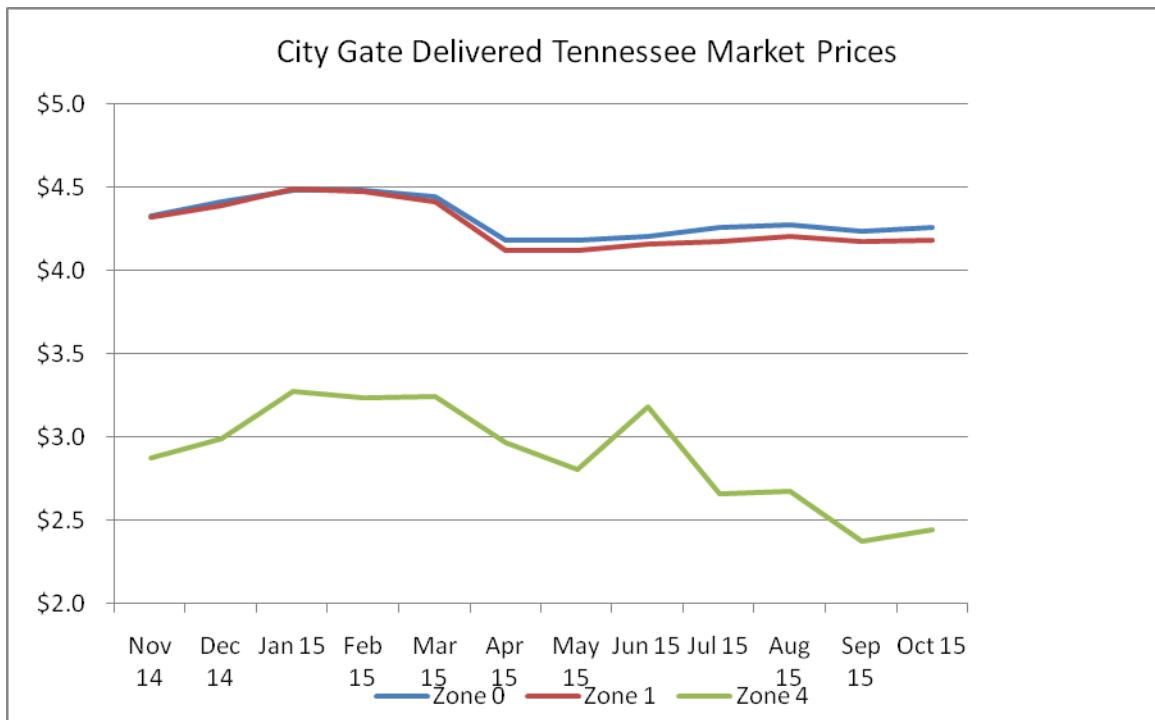
opportunities to purchase economically-priced Marcellus/Utica produc-

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1 supplies on existing short-haul or long-haul capacity or competitively priced
2 supply from the Gulf of Mexico (GOM) on existing long-haul capacity.
3
4 Historically, the Company was able to purchase least-cost gas from the GOM
5 utilizing its Tennessee Gas Pipeline (Tennessee) and Texas Eastern Gas
6 Transmission Company (Texas Eastern) long-haul contracts. With less expensive
7 Marcellus area prices available, at liquid points downstream of the GOM points,
8 the Company is now able to purchase less expensive supplies at the Texas Eastern
9 Market Area 2 (M2) point delivered to the Company's city gates on Algonquin
10 Gas Transmission (Algonquin), as well as the Tennessee Zone 4 (Zone 4) point
11 using existing pipeline contracts previously used to purchase GOM supplies. The
12 Company can make these less-expensive supply purchases without incurring any
13 additional fixed costs. Page 1 of Attachment EDA-2 includes forecasted
14 purchases from the M2 and Zone 4 points for this GCR period. By including
15 these points in the gas cost forecast, the Company is aligning its forecasted gas
16 costs with the actual purchase point location as included in the Company's
17 NGPMP.
18
19 Below are two graphs depicting city gate delivered pricing from Attachment
20 EDA-2, pages 3 and 4, for supply points on both Tennessee and Texas Eastern.
21 The first graph shows city gate delivered costs for gas purchased in Tennessee

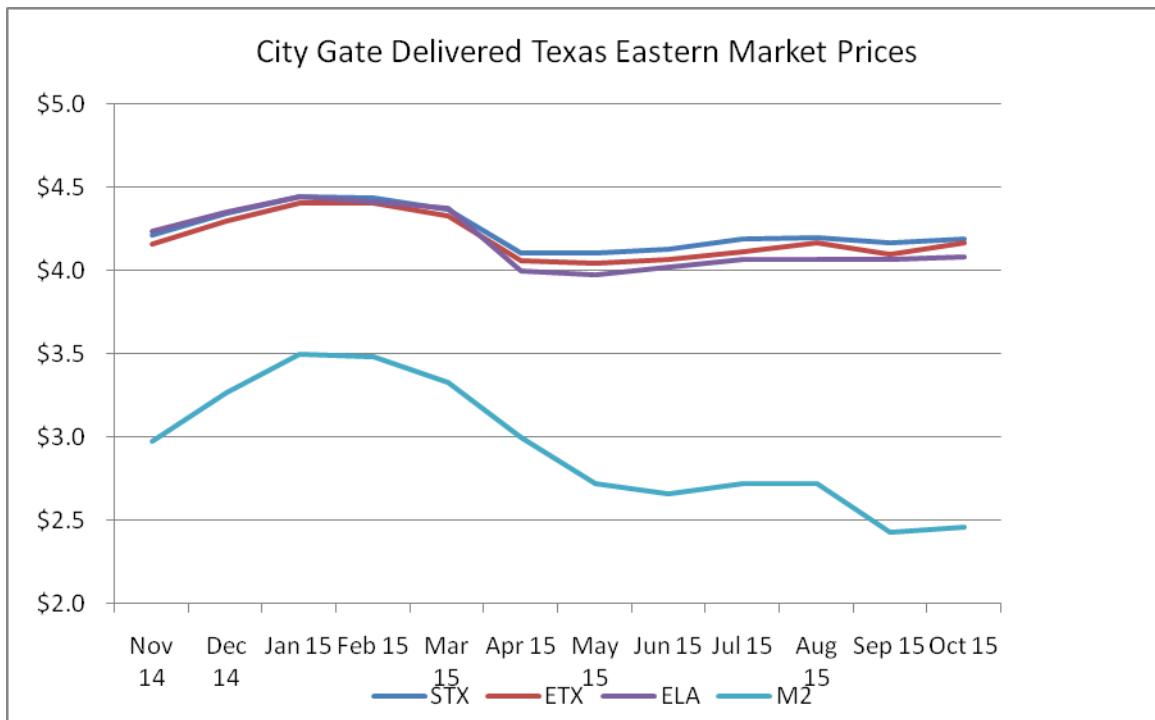
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1 Zone 4 as compared to city gate delivered cost for gas purchased in Tennessee
2 Zone 0 and Zone 1. The second graph shows city gate delivered costs for gas
3 purchased in Texas Eastern M2 as compared to city gate delivered costs for gas
4 purchased from South Texas (STX), East Texas (ETX), and East Louisiana (ELA)
5 supply points. As demonstrated, the forecasted city gate delivered costs for
6 Tennessee Zone 4 and Texas Eastern M2 are significantly less expensive than
7 their corresponding GOM supply points during the November 2014 through
8 October 2015 GCR period.



9
10

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1
2

3

- 4 **Q. How did the Company supply the Dawn capacity for the 2014/15 year?**
- 5 A. The Company has a total firm capacity entitlement of 1,025 Dths/day on the
- 6 Union Gas pipeline system. The capacity path originates at Dawn, Ontario
- 7 Canada and delivers into TransCanada at Parkway. In addition, the Company has
- 8 firm capacity entitlements of 1,012 Dths/day on the TransCanada pipeline system.
- 9 This capacity path originates at the interconnection with Union Gas at Parkway
- 10 and delivers into Iroquois Gas Transmission (Iroquois) at Waddington, New
- 11 York. This supply is delivered to the Company's distribution system on the

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1 Company's existing transportation contracts on Iroquois and Tennessee Gas
2 Pipeline (Tennessee).
3
4 The Company issued a Request for Proposal (RFP) on May 30, 2014 for an Asset
5 Management Agreement (AMA), similar to the RFP issued last year, to be
6 effective November 1, 2014 for a term of one year. The RFP requested a
7 maximum daily quantity (MDQ) of 1,025Dth/day of baseload for the months of
8 November 2014 through March 2015. Cargill Limited (Cargill) was awarded the
9 bid to manage the Canadian assets and provide the Company with supply at the
10 Canadian-US border at Waddington, New York. These supplies will then be
11 transported on the Company's Iroquois and Tennessee transportation capacity to
12 the Company's city gates.

13
14 **Q. What are the Company's plans to supply the "East-to-West" capacity for**
15 **2014/15 year?**
16 A. The Company issued an RFP on July 25, 2014 for an AMA, similar to the RFP
17 issued last year, to be effective November 1, 2014, for a term of one year.
18 Utilizing the SENDOUT® Model, the Company determined the appropriate
19 resource mix and established the baseload and swing volume requirements by
20 month. In the RFP, the Company requested a maximum daily quantity (MDQ) of
21 10,000 Dth/day, the contractual MDQ under the Algonquin contract, with both a

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1 baseload and swing component for the months of November 2014 through May
2 2015 and for the month of October 2015. Table 1 below provides a description of
3 the monthly baseload and swing quantities requested.

4 **TABLE 1**

Month	Daily Base-Load Quantity (dt/Day)	Maximum Daily Call Quantity (dt/Day)	Maximum Monthly Quantity (dt)
November 2013		10,000	200,000
December 2013	3,000	7,000	177,000
January 2014	3,000	7,000	226,000
February 2014	3,000	7,000	182,000
March 2014		10,000	200,000
April 2014		10,000	200,000
May 2014		3,000	39,000
June 2014		0	0
July 2014		0	0
August 2014		0	0
September 2014		0	0
October 2014		10,000	200,000

5
6 Subject to satisfying the gas supply requirements associated with the AMA, the
7 seller has the right to utilize and optimize the transportation agreement. In
8 exchange, the seller pays the Company an optimization fee. Emera Energy
9 (Emera) was awarded the bid to manage the assets and provide supplies for the
10 2014/15 season.

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- 1 **Q. Why did the Company issue an RFP for supply for the Algonquin Hubline**
- 2 **path for 2014/15 peak season?**
- 3 A. The Company issued an RFP for supply for the Algonquin HubLine path for the
- 4 2014/15 peak in order to secure the volumes needed prior to the start of the winter
- 5 season. The HubLine capacity originates at an ill-liquid point, Beverly, MA,
- 6 which is the interconnect between Algonquin and the Maritimes and Northeast
- 7 Pipeline. Limited supply is available from this point and given the need for
- 8 volumes in order to meet customer requirements, the Company issued an RFP on
- 9 July 25, 2014to purchase gas for a term of three months (December, January, and
- 10 February). Utilizing the SENDOUT® Model, the Company determined the
- 11 appropriate resource mix and established the required volume for the term in the
- 12 event of design weather. The RFP requested a maximum daily quantity (MDQ)
- 13 of 8,000 Dth/day, the maximum daily quantity (MDQ) of the Algonquin
- 14 transportation agreement, with a maximum seasonal quantity 160,000 Dths.
- 15 Emera was awarded the bid to provide the Company with supply at Beverly, MA.
- 16
- 17 **Q. Why did the Company issue an RFP for supply for the Dracut Tennessee**
- 18 **Path for 2014/15 peak season?**
- 19 A. The Company issued an RFP for supply for the Dracut Tennessee path for the
- 20 2014/15 peak season for the same reason as discussed above for Beverly, MA.
- 21 Limited supply is available from this point and given the need for volumes at

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1 Dracut in order to meet customer requirements, the Company issued an RFP on
2 July 25, 2014 to purchase supply at Dracut for a term of four months (December,
3 January, February, and March). Utilizing the SENDOUT® Model, the Company
4 determined the appropriate resource mix and established the required volume for
5 the term in the event of design weather. The RFP requested a maximum daily
6 quantity (MDQ) of 15,000 Dth/day, the MDQ of the Algonquin transportation
7 agreement, with a maximum seasonal quantity of 900,000 Dths. The Company
8 accepted and awarded the bid for the total supply package. The winning bidder
9 was BP Energy (BP). The supply agreement with BP also provides for an
10 alternate delivery point at the Company's city gates.

11

12 **Q. Has the Company entered into an arrangement for firm liquid service for the**
13 **2014 off-peak refill season?**

14 A. Yes, to date, the Company has entered into two arrangements for liquid service
15 for the 2014 off-peak refill season. On March 7, 2014, the Company submitted a
16 request to GDF Suez Gas NA LLC (GDF Suez) for 6.8 BCF on behalf of National
17 Grid's New England companies: Boston Gas Company, Colonial Gas Company
18 and Narragansett. In fact, for the second year in a row, GDF Suez limited the
19 volume and provided only 6.1 BCF to be delivered during the 2014 off-peak refill
20 season. The delivery was offered on a firm basis to the Company for the months
21 of April 2014 through November 2014. GDF Suez allocated the 6.1 BCF among

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1 the three New England companies to avoid any credit triggers, thereby, avoiding
2 the need for any one of the companies to post collateral. The purchase price is
3 identical in each of the agreements with GDF Suez. Following the execution of
4 the agreements with GDF Suez, the three companies executed affiliate agreements
5 which allow each LDC to buy and sell liquid amongst the three entities at the
6 same cost as in the underlying GDF Suez agreement.

7

8 As it has in previous years, the Company issued an RFP on March 14, 2014 for
9 dedicated trucking arrangements in order to guarantee the availability of both
10 trailers and drivers to truck the LNG from the GDF Suez terminal located in
11 Everett, Massachusetts to National Grid LNG facilities during the off-peak
12 season. Traditionally, the Company has entered into a peak season LNG refill
13 agreement with an annual contract quantity of 125,000 Dths. At this time, this
14 agreement has not been secured.

15

16 **Q. Please describe the allocations of firm liquid service to National Grid.**

17 A. The 6.1 BCF from GDF Suez was allocated between the Massachusetts and
18 Rhode Island companies based upon the LNG refill requirements for the 2014 off-
19 peak season. The allocation provides for 87.42%percent of LNG volumes to
20 Massachusetts and 12.58% percent of LNG volumes to Rhode Island. Because
21 the Company's refill requirement of 857,000 Dth exceeded the amount of liquid

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1 allocated to Rhode Island from GDF Suez, and because as of April 1, 2014, GDF
2 Suez would not guarantee the delivery of any additional volumes during the 2014
3 off-peak refill season, the Company sought to secure additional liquid supplies in
4 the marketplace.

5

6 On April 23, 2014, GDF Suez offered an additional 300,000 Dths to National
7 Grid to be taken only during the month of May 2014. Deliveries commenced the
8 week of May 1, 2014 with primary delivery to the National Grid LNG facilities
9 on behalf of Massachusetts and Rhode Island using the same allocation as the
10 original GDF Suez volumes.

11

12 In early June 2014, the Company was able to purchase an additional 72,000 Dths
13 from Gulf Oil Limited Partnership (Gulf Oil) for LNG volumes available from
14 Philadelphia Gas Works located in Philadelphia, Pennsylvania to delivery during
15 the months of July 2014 through October 2014. These volumes are being
16 delivered by Gulf Oil to the National Grid LNG (NGLNG) facility in Providence,
17 RI on behalf of Massachusetts and Rhode Island using the same allocation as the
18 GDF Suez volumes.

19

20 On August 14, 2014, GDF Suez offered an additional 200,000 Dths to the
21 Company to be taken during the month of September 2014. Deliveries will

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1 commence the week of September 1, 2014 with primary delivery to the National
2 Grid LNG facilities on behalf of Massachusetts and Rhode Island using the same
3 allocation method as the original GDF Suez volumes.

4

5 **Q. What is the Company doing to address long-term portfolio risks?**

6 A. To address the changing gas supply landscape and to ensure the Company's
7 ability to continue to reliably serve its existing customer requirements, National
8 Grid has employed a two-pronged approach to address the long-term reliability of
9 its gas supply portfolio, considering incremental pipeline capacity, and long-term
10 LNG solutions, and liquefaction projects.

11

12 First, with respect to pipeline capacity, the Company has elected to participate in
13 the Algonquin Incremental Market Expansion (AIM Project) and has executed a
14 Precedent Agreement. In addition, the Company has been in negotiations with
15 Tennessee for participation in the Northeast Energy Direct Project as well as
16 Algonquin regarding the Atlantic Bridge Project.

17

18 Second, with respect to long-term LNG options and the continued limited
19 availability of LNG in the region, the Company has continued its participation in
20 the LNG Consortium with other New England LDCs and Municipalities. The main
21 objectives of the LNG Consortium are: (1) to find more sources of liquid and (2)

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1 balance supply with price and diversity of sources. The LNG Consortium has met
2 with a number of parties interested in serving the New England LNG market,
3 either through existing facilities, expansion of existing facilities or construction of
4 new facilities.

5 In addition to participation in the LNG Consortium, the Company is also
6 continuing to pursue its own liquefaction opportunities. Development of on-
7 system liquefaction will enable the Company to reduce its reliance on imported
8 LNG.

9

10 **Q. Please provide an overview of the AIM Project?**

11 A. As previously described in Docket No. 4436, National Grid has participated in the
12 AIM Open Season, and has entered into a Precedent Agreement with Algonquin
13 for a fifteen-year term and an expected in-service date of November 1, 2016. The
14 AIM Project is a 342,000 dt/day expansion of Algonquin's interstate pipeline
15 running from the New York and New Jersey area to major markets in
16 Connecticut, Rhode Island, and Massachusetts. The AIM Project will provide
17 customers in these markets with access to the gas supplies from the Marcellus
18 Shale region in Northeastern Pennsylvania and several other storage fields and
19 interstate pipelines via the Millennium Pipeline at the existing interconnection at
20 Ramapo, NY. The project will also provide access to supplies available on the

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1 Iroquois Gas Transmission System which interconnects with Algonquin at
2 Brookfield, Connecticut.

3

4 **Q. Please provide an overview of the Tennessee Gas Pipeline Northeast Direct**
5 **Project?**

6 A. The Tennessee Gas Pipeline Northeast Energy Direct project has capacity scalable
7 from approximately 650,000 Dth/d to 1.2 Bcf/d, or ultimately up to 2.2 Bcf/d,
8 depending on final customer commitments. The pipeline capacity will include a
9 combination of new pipeline, existing pipeline, additional pipeline loops, new
10 compressor stations, station modifications, and metering and measurement
11 equipment from Wright, New York to Dracut, Massachusetts, as well as new and
12 existing city gates on Tennessee. Subject to receiving sufficient commitments for
13 capacity, as well as regulatory approval, the project is expected to begin service in
14 November 2018. The Company expects to reach agreement with Tennessee and
15 execute Precedent Agreements in the fourth quarter of 2014.

16

17 **Q. Please provide an overview of the Algonquin Atlantic Bridge Project?**

18 The Algonquin Atlantic Bridge Project is a proposed expansion of the Algonquin
19 and Maritimes systems, and will connect abundant North American natural gas
20 supplies with markets in the New England states and the Maritime Provinces.
21 Atlantic Bridge recently completed an open season for customers to submit

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1 requests for additional natural gas service with a targeted in-service date of
2 November 2017.

3

4 **Q. Are there any other contract charges affecting the supply portfolio and gas**
5 **costs?**

6 A. No.

7

8 **V. Directives from 2013/14 GCR**

9 **Q. Has the Company consulted with the Division of Public Utilities and Carriers**
10 **(Division) regarding a review of issues related to the Company's Customer**
11 **Choice program as directed by the PUC in Docket No. 4436?**

12 A. Yes, the Company has been engaging in discussions with the Division and their
13 consultant, Bruce Oliver, on a monthly basis, and has filed status reports with the
14 PUC regarding the Company's review of the issues related to its Customer Choice
15 program. The Company's last status report was filed on August 28, 2014.

16

17 **Q. Is the Company making any recommendations regarding its Customer**
18 **Choice program as a result of that review?**

19 A. Yes. As indicated in the Company's August 28, 2014 status report, the Company
20 will be filing a request with the PUC following its GCR filing to implement
21 certain specific short-term operational changes to the terms and conditions of its

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1 existing Customer Choice program and the applicable gas tariff. Additionally, the
2 Company will be proposing a collaborative working group to review and
3 recommend comprehensive changes to the Customer Choice program for
4 implementation over the longer-term.

5 **Q. Does this conclude your testimony?**

6 A. Yes, it does.

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Attachments of Elizabeth D. Arangio

EDA-1 Summary of Projected Gas Costs - **CONFIDENTIAL Information**

EDA-2 Gas Cost Details - **CONFIDENTIAL Information**

EDA-3 NYMEX Strip Comparison

EDA-4 Assignment of Pipeline Capacity - **CONFIDENTIAL Information**

EDA-5 FT-2 Operational Parameters

EDA-6 FT-2 Storage Variable Costs

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EDA-1 Summary of Projected Gas Costs - REDACTED Information

REDACTED VERSION

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 Attachment EDA-1
 Redacted
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SUMMARY OF ESTIMATED GAS COSTS FOR 2014-2015 GCR

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	GCR	TOTAL
Variable Costs														
Total Pipeline Supply Costs														
Total Storage Product Costs	\$730,579	\$2,952,121	\$3,241,654	\$2,994,928	\$2,715,510	\$6,392,579	\$3,552,827	\$2,580,903	\$1,995,441	\$1,892,137	\$1,743,621	\$3,211,062	\$90,793,759	
Total Storage Delivery Costs	\$30,844	\$170,228	\$182,144	\$168,262	\$153,958	\$39,125	\$2,182	\$0	\$0	\$0	\$0	\$0	\$12,676,100	
Total LNG Costs						\$1,885	\$26	\$0	\$0	\$0	\$0	\$0	\$0	\$707,346
Total All Variable Gas Costs														
Fixed Costs														
Total Pipeline Demands														
Total Storage Facilities	\$435,155	\$435,155	\$435,155	\$435,155	\$435,155	\$435,155	\$435,155	\$435,155	\$435,155	\$435,155	\$435,155	\$435,155	\$435,155	\$5,221,856
Total Storage Delivery														
Total Supplier Demands														
Total All Fixed Costs	\$3,728,760	\$3,967,301	\$3,965,962	\$3,964,338	\$3,832,962	\$4,443,483	\$4,444,024	\$4,443,483	\$4,444,024	\$4,443,483	\$4,444,024	\$4,444,024	\$4,444,024	\$50,565,867
Capacity Release Credits	\$517,512	\$517,512	\$517,512	\$517,512	\$517,512	\$517,512	\$517,512	\$517,512	\$517,512	\$517,512	\$517,512	\$517,512	\$517,512	\$6,210,145
NGMP Credit	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$6,900,000
Net Fixed Costs	\$2,636,248	\$2,874,789	\$2,873,450	\$2,871,826	\$2,740,450	\$3,350,971	\$3,351,512	\$3,350,971	\$3,351,512	\$3,351,512	\$3,351,512	\$3,351,512	\$3,351,512	\$37,455,723
Total All Gas Costs						\$9,884,973	\$6,989,827	\$6,016,097	\$5,436,149	\$5,331,809	\$5,177,862	\$6,646,301	\$146,440,909	

Attachment EDA-2
REDACTED

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EDA-2 Gas Cost Details – REDACTED Information

REDACTED VERSION

REDACTED VERSION

National Grid 2014 Estimated GCR Normal Weather Scenario		Ventyx SENDOUT@ Version 12.5.5												
		Natural Gas Supply V/S. Requirements												
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
07/31/2014 NYMEX		\$3.925	\$4.005	\$4.075	\$4.064	\$3.995	\$3.758	\$3.747	\$3.780	\$3.814	\$3.824	\$3.811	\$3.832	
TENNESSEE ZONE 0 CONNEXION														
Basis		(\$0.117)	(\$0.115)	(\$0.120)	(\$0.112)	(\$0.080)	(\$0.090)	(\$0.080)	(\$0.070)	(\$0.070)	(\$0.070)	(\$0.090)	(\$0.090)	
Usage to Zn 6		\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235
Fuel to Zn 6		4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%
Total Delivered		\$4.0164	\$4.1024	\$4.1705	\$4.1674	\$4.1286	\$3.8696	\$3.8695	\$3.8926	\$3.9493	\$3.9597	\$3.9251	\$3.9472	
TENNESSEE ZONE 0														
Basis		(\$0.117)	(\$0.115)	(\$0.120)	(\$0.112)	(\$0.080)	(\$0.090)	(\$0.080)	(\$0.070)	(\$0.070)	(\$0.070)	(\$0.090)	(\$0.090)	
Usage to Zn 6		\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359
Fuel to Zn 6		4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%
Total Delivered		\$4.3288	\$4.4148	\$4.4829	\$4.4798	\$4.4410	\$4.1820	\$4.1809	\$4.2050	\$4.2617	\$4.2721	\$4.2375	\$4.2596	
TENNESSEE ZONE 1														
Basis		(\$0.058)	(\$0.073)	(\$0.048)	(\$0.049)	(\$0.044)	(\$0.087)	(\$0.074)	(\$0.072)	(\$0.089)	(\$0.074)	(\$0.087)	(\$0.105)	
Usage to Zn 6		\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927
Fuel to Zn 6		4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%
Total Delivered		\$4.3239	\$4.3911	\$4.4906	\$4.4776	\$4.4109	\$4.1190	\$4.1217	\$4.1581	\$4.1759	\$4.2019	\$4.1748	\$4.1774	
TENNESSEE ZONE 4 CONNEXION														
Basis		(\$1.200)	(\$1.170)	(\$0.960)	(\$0.990)	(\$0.910)	(\$0.946)	(\$1.095)	(\$1.305)	(\$1.300)	(\$1.580)	(\$1.530)		
Usage to Zn 6		\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	
Fuel to Zn 6		1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	
Total Delivered		\$2.7701	\$2.8817	\$3.1656	\$3.1240	\$3.1352	\$2.8594	\$2.6961	\$3.0743	\$2.5511	\$2.5663	\$2.2691	\$2.3411	
TENNESSEE ZONE 4														
Basis		(\$1.200)	(\$1.170)	(\$0.960)	(\$0.990)	(\$0.910)	(\$0.945)	(\$1.095)	(\$1.305)	(\$1.300)	(\$1.580)	(\$1.530)		
Usage to Zn 6		\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	
Fuel to Zn 6		1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	
Total Delivered		\$2.8774	\$2.9890	\$3.2729	\$3.2313	\$3.2425	\$2.9667	\$2.8034	\$3.1816	\$2.6584	\$2.6736	\$2.3764	\$2.4484	
NIAGARA TO TENNESSEE														
Basis		\$0.140	\$0.240	\$0.255	\$0.272	\$0.220	\$0.233	(\$0.077)	(\$0.246)	(\$0.391)	\$0.159	\$0.150	\$0.203	
Term Usage		\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	
Tenn Fuel		1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	
Total Delivered		\$4.1942	\$4.3761	\$4.4620	\$4.4681	\$4.4469	\$4.1195	\$3.7950	\$3.6576	\$3.5454	\$4.1114	\$4.0891	\$4.1639	
TENNESSEE DRACUT														
Basis		\$2.074	\$10.799	\$14.056	\$13.146	\$5.654	\$0.628	-\$0.986	\$0.535	-\$0.184	-\$0.536	-\$0.969	-\$0.622	
Usage		\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	
Fuel		0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	
Total Delivered		\$6.0470	\$14.8706	\$18.2046	\$17.2816	\$9.7047	\$4.4306	\$2.8022	\$4.3595	\$3.6730	\$3.3303	\$2.8834	\$3.2522	
TETCO ELA														
Basis		(\$0.055)	(\$0.075)	(\$0.061)	(\$0.078)	(\$0.045)	(\$0.110)	(\$0.120)	(\$0.107)	(\$0.110)	(\$0.097)	(\$0.107)		
Usage to M3		\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	
Usage on AGT		\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	
Fuel to M3		5.88%	6.93%	6.93%	6.93%	6.93%	5.88%	5.88%	5.88%	5.88%	5.88%	5.88%	5.88%	
Fuel on AGT		0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	
Total Delivered		\$4.2385	\$4.3546	\$4.4457	\$4.4154	\$4.3763	\$4.007	\$3.9782	\$4.0275	\$4.0682	\$4.0714	\$4.0832	\$4.0832	

REDACTED VERSION

National Grid 2014 Estimated GCR Normal Weather Scenario		SENDOUT@ Version 12.55												
		Natural Gas Supply VS. Requirements												
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TETCO ETX														
Basis		(\$0.116)	(\$0.103)	(\$0.071)	(\$0.062)	(\$0.064)	(\$0.046)	(\$0.049)	(\$0.062)	(\$0.052)	(\$0.012)	(\$0.059)	(\$0.016)	
Usage to M3		\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	
Usage on AGT		\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	
Fuel to M3		5.57%	6.31%	6.31%	6.31%	6.31%	5.57%	5.57%	5.57%	5.57%	5.57%	5.57%	5.57%	
Fuel on AGT		0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	
Total Delivered		\$4.1598	\$4.2963	\$4.4062	\$4.4040	\$4.3275	\$4.0562	\$4.0413	\$4.0626	\$4.1096	\$4.1630	\$4.0989	\$4.1672	
TETCO STX														
Basis		(\$0.083)	(\$0.090)	(\$0.067)	(\$0.065)	(\$0.057)	(\$0.012)	(\$0.003)	(\$0.012)	(\$0.008)	\$0.008	(\$0.013)	(\$0.012)	
Usage to M3		\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	
Usage on AGT		\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	
Fuel to M3		5.83%	6.87%	6.87%	6.87%	6.87%	5.83%	5.83%	5.83%	5.83%	5.83%	5.83%	5.83%	
Fuel on AGT		0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	
Total Delivered		\$4.2127	\$4.3420	\$4.4428	\$4.4330	\$4.3669	\$4.1099	\$4.1078	\$4.1335	\$4.1913	\$4.2020	\$4.1656	\$4.1891	
TETCO WLA														
Basis		(\$0.102)	(\$0.063)	(\$0.077)	(\$0.039)	(\$0.019)	(\$1.864)	(\$1.886)	(\$1.864)	(\$2.261)	(\$0.824)	(\$1.141)	(\$1.211)	
Usage to M3		\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	
Usage on AGT		\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	
Fuel to M3		5.88%	6.93%	6.93%	6.93%	6.93%	5.88%	5.88%	5.88%	5.88%	5.88%	5.88%	5.88%	
Fuel on AGT		0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	
Total Delivered		\$4.1882	\$4.3677	\$4.4284	\$4.4577	\$4.4045	\$2.2810	\$2.1101	\$1.7202	\$2.2959	\$4.0382	\$2.8781	\$6.0177	
TETCO M2														
Basis		(\$1.141)	(\$0.956)	(\$0.810)	(\$0.817)	(\$0.892)	(\$0.950)	(\$1.205)	(\$1.296)	(\$1.274)	(\$1.282)	(\$1.548)	(\$1.543)	
Usage on Tetco		\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	
Usage on AGT		\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	
Fuel to M3		3.69%	4.13%	4.13%	4.13%	4.13%	3.69%	3.69%	3.69%	3.69%	3.69%	3.69%	3.69%	
Fuel on AGT		0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	
Total Delivered		\$2.9776	\$3.2729	\$3.5003	\$3.4813	\$3.3298	\$3.0027	\$2.7243	\$2.6635	\$2.7222	\$2.7243	\$2.4322	\$2.4322	
TETCO M3 DELIVERED														
Basis		(\$0.585)	\$0.620	\$3.200	\$2.095	\$0.023	(\$0.885)	(\$1.150)	(\$1.102)	(\$0.860)	(\$0.860)	(\$1.410)	(\$1.372)	
Usage on AGT		\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	
Fuel to M3		0.81%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	
Total Delivered		\$3.3797	\$4.6799	\$7.3542	\$6.2280	\$4.0673	\$2.9089	\$2.6306	\$2.7123	\$2.9905	\$2.9704	\$2.4330	\$2.4330	
COLUMBIA MAUMEE														
Basis		(\$0.120)	(\$0.155)	(\$0.180)	(\$0.170)	(\$0.175)	(\$0.145)	(\$0.145)	(\$0.145)	(\$0.280)	(\$0.350)	(\$0.547)	(\$0.512)	
Usage on Columbia		\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	
Usage on AGT		\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	
Fuel to Columbia		1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	
Fuel on AGT		0.81%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	
Total Delivered		\$3.9402	\$3.9904	\$4.0357	\$4.0357	\$3.9586	\$3.7788	\$3.7315	\$3.6935	\$3.6616	\$3.6000	\$3.3841	\$3.4417	

National Grid
2014 Estimated GCR
Normal Weather Scenario

Ventyx
SENDOUT® Version 12.5.5

Natural Gas Supply VS. Requirements										Units: DTH					
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average	
COLUMBIA BROADRUN															
Basis	(\$0.120)	(\$0.155)	(\$0.180)	(\$0.170)	(\$0.175)	(\$0.112)	(\$0.145)	(\$0.215)	(\$0.280)	(\$0.350)	(\$0.350)	(\$0.547)	(\$0.512)		
Usage on Columbia	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166		
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124		
Fuel on Columbia	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%		
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%		
Total Delivered	\$3.9402	\$3.9904	\$4.0367	\$4.0357	\$3.9596	\$3.7768	\$3.7315	\$3.6935	\$3.6616	\$3.6000	\$3.3447	\$3.3447			
COLUMBIA EAGLE															
Basis	(\$0.585)	\$0.620	\$3.200	\$2.095	\$0.023	(\$0.885)	(\$1.150)	(\$1.102)	(\$0.860)	(\$0.890)	(\$0.890)	(\$1.410)	(\$1.372)		
Usage on Columbia	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166		
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124		
Fuel on Columbia	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%		
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%		
Total Delivered	\$3.4622	\$4.7879	\$7.5145	\$6.3662	\$4.1633	\$2.9822	\$2.6985	\$2.7818	\$3.0655	\$3.0449	\$2.4971	\$2.5577			
COLUMBIA DOWNTINGTON															
Basis	(\$0.410)	\$0.920	\$2.123	\$3.325	\$0.085	(\$0.628)	(\$1.015)	(\$1.000)	(\$0.708)	(\$0.738)	(\$0.738)	(\$1.113)	(\$1.070)		
Usage on Columbia	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166		
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124		
Fuel on Columbia	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%		
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%		
Total Delivered	\$3.6421	\$5.0965	\$6.4063	\$7.6318	\$4.2271	\$3.2464	\$2.8373	\$2.8866	\$3.2217	\$3.2011	\$2.8023	\$2.8681			
TETCO -> NF -> TRANSCO															
Basis	(\$0.055)	(\$0.061)	(\$0.075)	(\$0.078)	(\$0.045)	(\$0.110)	(\$0.120)	(\$0.107)	(\$0.103)	(\$0.110)	(\$0.110)	(\$0.097)	(\$0.107)		
Usage to M2	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147		
Usage on NF	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160		
Usage on Transco	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068		
Usage on AGT	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285		
Fuel to M2	4.93%	5.69%	5.69%	5.69%	5.69%	5.69%	4.93%	4.93%	4.93%	4.93%	4.93%	4.93%	4.93%		
Fuel on NF	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%		
Fuel on Transco	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%		
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%		
Delivered to NF	\$4.4854	\$4.5818	\$4.6709	\$4.6412	\$4.6030	\$4.2519	\$4.2298	\$4.2782	\$4.3181	\$4.3213	\$4.3213	\$4.3213	\$4.3213		
Delivered to Transco	\$4.6488	\$4.7388	\$4.7088	\$4.6702	\$4.3752	\$4.2928	\$4.3418	\$4.3622	\$4.3654	\$4.3654	\$4.3654	\$4.3654	\$4.3654		
Delivered to Algonquin	\$4.5513	\$4.6667	\$4.7570	\$4.7269	\$4.6882	\$4.3323	\$4.3099	\$4.3589	\$4.4027	\$4.4027	\$4.4027	\$4.4027	\$4.4027		
Total Delivered	\$4.8348	\$4.9381	\$5.0292	\$4.9988	\$4.9598	\$4.5962	\$4.5736	\$4.6230	\$4.6639	\$4.6639	\$4.6639	\$4.6639	\$4.6639		

REDACTED VERSION

The Narragansett Electric Company
d/b/a National Grid
Docket No. 4520
Attachment EDA-2
Redacted
September 2, 2014
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REDACTED VERSION

REDACTED VERSION

National Grid 2014 Estimated GCR Normal Weather Scenario			Ventyx SENDOUT@ Version 12.5.5		
Natural Gas Supply V.S. Requirements			Units: DTH		
	NOV	DEC	JAN	FEB	MAR
Total Delivered to the City Gate Gas Supply Costs					
Delivered MMBtu	0	0	0	0	0
Delivered Price	\$4.016	\$4.102	\$4.171	\$4.167	\$4.129
Total Delivered Cost	\$0	\$0	\$0	\$0	\$0
TENNESSEE ZONE 0 CONNEXION					
Delivered MMBtu	0	0	0	0	0
Delivered Price	\$4.329	\$4.415	\$4.483	\$4.480	\$4.441
Total Delivered Cost	\$0	\$0	\$0	\$0	\$0
TENNESSEE ZONE 1					
Delivered MMBtu	0	0	0	0	0
Delivered Price	\$4.324	\$4.391	\$4.491	\$4.478	\$4.411
Total Delivered Cost	\$0	\$0	\$0	\$0	\$0
TENNESSEE ZONE 4 CONNEXION					
Delivered MMBtu	348,000	359,600	324,800	359,600	348,000
Delivered Price	\$2,7701	\$2,8817	\$3,1240	\$3,1352	\$2,8594
Total Delivered Cost	\$963,999	\$1,036,246	\$1,138,353	\$1,014,685	\$1,127,413
TENNESSEE ZONE 1 TO TENNESSEE					
Delivered MMBtu	242,400	359,400	410,600	275,800	390,400
Delivered Price	\$2,8774	\$2,9980	\$3,2729	\$3,2313	\$2,9667
Total Delivered Cost	\$697,485	\$1,074,233	\$1,592,597	\$1,326,784	\$894,278
TENNESSEE ZONE 4					
Delivered MMBtu	0	0	0	0	0
Delivered Price	\$4.1942	\$4.3761	\$4.4620	\$4.4681	\$4.4469
Total Delivered Cost	\$0	\$0	\$0	\$0	\$0
TENNESSEE DRA CUT					
Delivered MMBtu	0	66,200	83,400	136,000	46,400
Delivered Price	\$6.05	\$14.87	\$18.20	\$17.28	\$9.70
Total Delivered Cost	\$0	\$984,431	\$1,518,260	\$2,350,300	\$450,298
TETCO ELA					
Delivered MMBtu	0	0	0	0	0
Delivered Price	\$4.2385	\$4.3546	\$4.4457	\$4.4154	\$4.3763
Total Delivered Cost	\$0	\$0	\$0	\$0	\$0
TETCO ETX					
Delivered MMBtu	0	\$4.2963	\$4.4062	\$4.4040	\$4.3275
Delivered Price	\$4.1598	\$0	\$0	\$0	\$0
Total Delivered Cost	\$0	\$0	\$0	\$0	\$0

REDACTED VERSION

Natural Gas Supply VS. Requirements										Units: DTH					
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT		
TETCO STX															
Delivered MMBtu	0	0	0	\$4,443	0	\$4,433	0	\$4,367	0	\$4,110	0	\$4,133	0	\$4,191	0
Delivered Price	\$4,213	\$4,342	\$0	\$4,342	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,202	\$4,166
Total Delivered Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,189
TETCO WLA															
Delivered MMBtu	0	0	0	\$4,4284	0	\$4,4577	0	\$4,4045	0	\$8,2810	0	\$2,1101	0	\$1,7202	0
Delivered Price	\$4,1882	\$4,3677	\$0	\$4,3677	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,0382
Total Delivered Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,0177
TETCO M2															
Delivered MMBtu	765,100	796,000	773,700	698,800	773,700	274,100	274,100	274,100	274,100	776,700	525,200	492,900	544,200	544,200	784,000
Delivered Price	\$2,9776	\$3,2729	\$3,5003	\$3,4813	\$3,3298	\$3,0027	\$2,7243	\$2,6635	\$2,6635	\$2,7243	\$2,7222	\$2,7243	\$2,4322	\$2,4322	\$2,4594
Total Delivered Cost	\$2,278,149	\$2,605,244	\$2,708,177	\$2,432,764	\$2,576,237	\$823,042	\$746,720	\$746,720	\$746,720	\$823,042	\$1,429,682	\$1,342,788	\$1,323,606	\$1,323,606	\$1,928,186
TETCO M3 DELIVERED															
Delivered MMBtu	400,890	128,300	243,300	234,700	122,200	1,353,200	1,058,800	295,600	295,600	0	0	0	0	0	27,000
Delivered Price	\$3,3797	\$4,6799	\$7,3542	\$6,2280	\$4,0673	\$2,9089	\$2,6306	\$2,7123	\$2,7123	\$0	\$0	\$0	\$0	\$0	\$24,330
Total Delivered Cost	\$1,354,574	\$600,428	\$1,789,279	\$1,461,703	\$497,024	\$3,936,271	\$2,785,287	\$801,747	\$801,747	\$0	\$0	\$0	\$0	\$0	\$65,691
COLUMBIA MAUMEE															
Delivered MMBtu	103,200	835,400	911,500	798,100	730,000	58,700	0	0	0	0	0	0	0	0	0
Delivered Price	\$3,9402	\$3,9804	\$4,0367	\$4,0357	\$3,9596	\$3,7768	\$3,7315	\$3,6935	\$3,6935	\$0	\$0	\$0	\$0	\$0	\$3,4417
Total Delivered Cost	\$4,06,627	\$3,333,620	\$3,679,496	\$3,220,907	\$2,890,493	\$221,655	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$595,206
COLUMBIA BROADRUN															
Delivered MMBtu	34,200	307,200	267,600	257,600	19,800	0	0	0	0	0	0	0	0	0	0
Delivered Price	\$3,9402	\$3,9804	\$4,0367	\$4,0357	\$3,9596	\$3,7768	\$3,7315	\$3,6935	\$3,6935	\$0	\$0	\$0	\$0	\$0	\$3,4417
Total Delivered Cost	\$134,754	\$1,225,685	\$1,240,089	\$1,079,958	\$1,019,988	\$74,780	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
COLUMBIA EAGLE															
Delivered MMBtu	39,400	49,800	72,700	67,800	28,500	63,800	45,300	44,400	44,400	12,100	40,800	26,500	15,100		
Delivered Price	\$3,4622	\$4,7879	\$7,5145	\$6,3662	\$4,1633	\$2,9822	\$2,6985	\$2,7818	\$2,7818	\$3,0655	\$124,232	\$124,232	\$124,232	\$124,232	\$2,5577
Total Delivered Cost	\$136,412	\$238,436	\$446,301	\$431,628	\$18,654	\$190,265	\$122,243	\$123,511	\$123,511	\$37,092	\$0	\$0	\$0	\$0	\$38,621
COLUMBIA DOWNTONTOWN															
Delivered MMBtu	33,900	41,700	105,800	68,600	27,600	24,200	0	500	0	0	0	0	0	0	0
Delivered Price	\$3,6421	\$5,0965	\$6,4063	\$7,6318	\$4,2271	\$3,2464	\$2,8373	\$2,8866	\$2,8866	\$3,2217	\$0	\$0	\$0	\$0	\$2,8681
Total Delivered Cost	\$123,467	\$212,525	\$677,789	\$523,538	\$16,668	\$78,562	\$0	\$1,443	\$1,443	\$0	\$0	\$0	\$0	\$0	\$0

Ventyx

SENDOUT® Version 12.5.5

REDACTED VERSION

REDACTED VERSION

The Narragansett Electric Company
d/b/a National Grid
Docket No. 4520
Attachment EDA-2
Redacted
September 2, 2014
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2014-2015 Gas Supply Fixed Costs
UNIT PRICES
UNIT TESTIMATES
GER COST ESTIMATE
RED COST TESTIMATES

REDACTED VERSION

	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15
STORAGE FIXED COST BILLING UNITS												
COLUMBIA FSS DEMAND	Dth	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545
COLUMBIA FSS CAPACITY	Dth	203,957	203,957	203,957	203,957	203,957	203,957	203,957	203,957	203,957	203,957	203,957
DOMINION GSS DEMAND	Dth	11,403	11,403	11,403	11,403	11,403	11,403	11,403	11,403	11,403	11,403	11,403
DOMINION GSS CAPACITY	Dth	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304
DOMINION GSS-TE DEMAND	Dth	14,337	14,337	14,337	14,337	14,337	14,337	14,337	14,337	14,337	14,337	14,337
DOMINION GSS-TE CAPACITY	Dth	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324
TENNESSEE FSMA DEMAND	Dth	21,169	21,169	21,169	21,169	21,169	21,169	21,169	21,169	21,169	21,169	21,169
TENNESSEE FSMA CAPACITY	Dth	815,343	815,343	815,343	815,343	815,343	815,343	815,343	815,343	815,343	815,343	815,343
TEXAS EASTERN SS-1 DEMAND	Dth	14,802	14,802	14,802	14,802	14,802	14,802	14,802	14,802	14,802	14,802	14,802
TEXAS EASTERN SS-1 CAPACITY	Dth	103,336	103,336	103,336	103,336	103,336	103,336	103,336	103,336	103,336	103,336	103,336
TEXAS EASTERN FSS-1 DEMAND	Dth	944	944	944	944	944	944	944	944	944	944	944
TEXAS EASTERN FSS-1 CAPACITY	Dth	4,720	4,720	4,720	4,720	4,720	4,720	4,720	4,720	4,720	4,720	4,720
STORAGE DELIVERY BILLING UNITS (DTH)												
ALGONQUIN FOR TETCO SS-1	Dth	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137
ALGONQUIN DELIVERY FOR FSS-1	Dth	944	944	944	944	944	944	944	944	944	944	944
ALGONQUIN SCT FOR SS-1	Dth	665	665	665	665	665	665	665	665	665	665	665
ALGONQUIN DELIVERY FOR GSS, GSS-TE,	Dth	11,739	11,739	11,739	11,739	11,739	11,739	11,739	11,739	11,739	11,739	11,739
ALGONQUIN SCT DELIVERY FOR GSS-TE,	Dth	187	187	187	187	187	187	187	187	187	187	187
ALGONQUIN DELIVERY FOR GSS CONV	Dth	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061
ALGONQUIN DELIVERY FOR FSS	Dth	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545
COLUMBIA DELIVERY FOR FSS	Dth	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545
DOMINION DELIVERY FOR GSS	Dth	5,324	5,324	5,324	5,324	5,324	5,324	5,324	5,324	5,324	5,324	5,324
DOMINION DELIVERY FOR GSS, CONV	Dth	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061
TENNESSEE DELIVERY FOR GSS	Dth	6,725	6,725	6,725	6,725	6,725	6,725	6,725	6,725	6,725	6,725	6,725
TENNESSEE DELIVERY FOR FSMA	Dth	4,111	4,111	4,111	4,111	4,111	4,111	4,111	4,111	4,111	4,111	4,111
TETCO DELIVERY FOR FSS-1	Dth	944	944	944	944	944	944	944	944	944	944	944
TETCO DELIVERY FOR GSS-TE	Dth	6,377	6,377	6,377	6,377	6,377	6,377	6,377	6,377	6,377	6,377	6,377
TETCO DELIVERY FOR GSS-TE	Dth	538	538	538	538	538	538	538	538	538	538	538
TETCO DELIVERY FOR GSS-TE	Dth	5,011	5,011	5,011	5,011	5,011	5,011	5,011	5,011	5,011	5,011	5,011
TETCO PEAKING SUPPLY AT SALEM	Dth	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061
SUPPLIER FIXED COST BILLING UNITS												
DISTRIGAS NSB CALL PAYMENT Winter	Dth											
DISTRIGAS NSB CALL PAYMENT Summer	Dth											
EMERA PEAKING SUPPLY AT SALEM	Dth											
BP PEAKING SUPPLY AT DRACUT	Dth											

SUPPLIER FIXED COST BILLING UNITS
 DISTRIGAS NSB CALL PAYMENT Winter
 DISTRIGAS NSB CALL PAYMENT Summer
 EMERA PEAKING SUPPLY AT SALEM
 BP PEAKING SUPPLY AT DRACUT

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STORAGE FIXED COST DOLLARS

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Storage Withdrawal at Facility Dth
TENN_501
EFCO FSS 300170
EFCO FSS 300168
EFCO FSS 300171
EFCO FSS -TE 600045
EFCO _400515
EFCO _400221
EFCO 400185
EFCO FSS 300169
EFCO FSS 9630
TENN_62918

STORAGE WITHDRAWAL PRICES	
Tennessee	Withdrawal
Dominion GSS	Withdrawal
Dominion GSS-TE	Withdrawal
Entecon SS-1	Withdrawal
Entecon FSS-1	Withdrawal
Columbia	Withdrawal

Storage Withdrawals at Gate Dth	
Withdrawal Costs	TENN_501
Tennessee Withdrawal	ETCO_300170
Illinoian GSS Withdrawal	SSSS_300188
Illinoian GSS-TE Withdrawal	SSSS_TE_600045
ETCO SS-1 Withdrawal	ETCO_400815
ETCO FSS-1 Withdrawal	ETCO_400230
Vancouver Withdrawal	COL_FSS_6630
Total	TENN_62918

Storage Transportation Prices
Tennessee Transportation
Dominion Trans on Teico/AGT
Dominion Trans on DTI/teico/AGT
Dominion Trans on Tennessee
Dominion Trans on DTI/Tennessee
teico SS-1 Trans
teico Trans
Columbia Trans

Storage Transportation Costs					
Tennessee Transportation					
Dominion Trans on Tecto/AGT					
Dominion Trans on DTI/RetcoAGT					
Dominion Trans on Tennessee					
Dominion Trans on DTI/Tennessee					
Tecto SS-1 Trans					
Retco FSS-1 Trans					
Columbia Trans					
				total	total Variable

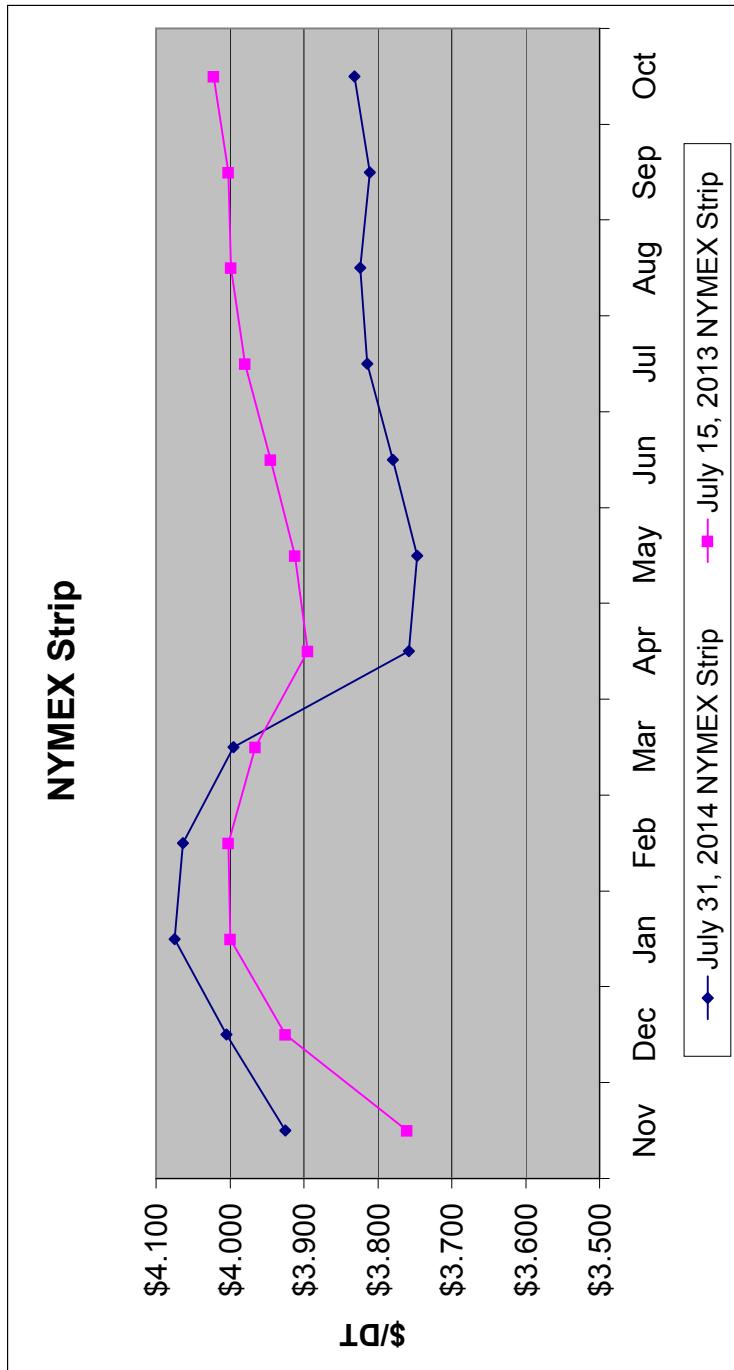
REDACTED VERSION

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**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
2014 GAS COST RECOVERY FILING
WITNESS: ELIZABETH D. ARANGIO
SEPTEMBER 2, 2014**

EDA-3 NYMEX Strip Comparison

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
July 15, 2013 NYMEX Strip	\$3.761	\$3.925	\$4.000	\$4.002	\$3.966	\$3.895	\$3.912	\$3.945	\$3.980	\$3.999	\$4.002	\$4.022
July 31, 2014 NYMEX Strip	\$3.925	\$4.005	\$4.075	\$4.064	\$3.995	\$3.758	\$3.747	\$3.780	\$3.814	\$3.824	\$3.811	\$3.832



Attachment EDA-4
REDACTED

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
2014 GAS COST RECOVERY FILING
WITNESS: ELIZABETH D. ARANGIO
SEPTEMBER 2, 2014

EDA-4 Assignment of Pipeline Capacity - REDACTED Information

PRELIMINARY

12 Month Forward Pricing

National Grid
Summary of Transportation Capacity Release
Pipeline Path Availability and Pricing
November 2014 - October 2015

PRELIMINARY

REDACTED VERSION

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Path to City Gate	As of 8/1/14 Existing Releases	Total Available	Remaining Available	Cost per Dth	New Credit or Surcharge	Old Credit or Surcharge
Company Weighted Average				\$0.4080		
Tennessee Zone 1	9,499	9,500	1	\$1.1079	(\$0.6999)	(\$0.2280)
Algonquin @ Lambertville, NJ	2,316	2,714	398	\$0.0524	\$0.3556	\$0.6639
Texas Eastern - South Texas Algonquin @ Lambertville, NJ	3,682	4,044	362	\$1.3049	(\$0.8969)	(\$0.2812)
Texas Eastern - West La Algonquin @ Lambertville, NJ	8,500	8,500	0	\$1.0177	(\$0.6097)	(\$0.0881)
Texas Eastern - East La Algonquin @ Lambertville, NJ	6,500	6,500	0	\$0.9217	(\$0.5137)	\$0.0138
Columbia (Maumee/Downington) at 5:1 ratio*	144	1,500	1,356	\$0.2686	\$0.1394	\$0.5681
Totals:	30,641	32,758	2,117			

* Note: Marketers selecting this path are assigned 5/6 of the amount selected at the Maumee, Ohio receipt point into Columbia and 1/6 at the Downington, Pa. Receipt into Columbia.

REDACTED VERSION

REDACTED VERSION

Gas Year 2014 - 2015 ALGONQUIN LAMBERTVILLE TO CITY GATE CITY GATE DELIVERED MDQ = 2,714													
UNIT PRICING													
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
FIXED													
ALGONQUIN AFT-E DEMAND VARIABLE	\$/Dth	\$6,4213	\$6,4213	\$6,4213	\$6,4213	\$6,4213	\$6,4213	\$6,4213	\$6,4213	\$6,4213	\$6,4213	\$6,4213	\$6,4213
ALGONQUIN AFT-E USAGE	\$/Dth	\$0,0124	\$0,0124	\$0,0124	\$0,0124	\$0,0124	\$0,0124	\$0,0124	\$0,0124	\$0,0124	\$0,0124	\$0,0124	\$0,0124
07/31/2014 NYMEX	\$/Dth	\$3,9250	\$4,0050	\$4,0750	\$4,0640	\$3,9850	\$3,7880	\$3,7470	\$3,7800	\$3,8140	\$3,8240	\$3,8110	\$3,8320
SUPPLY AREA BASIS	\$/Dth	\$0,6200	\$3,2000	\$2,0950	\$2,0950	\$1,1500	\$1,1500	\$1,1500	\$1,1500	\$1,1500	\$1,1500	\$1,1500	\$1,3720
NET COST AFTER BASIS	\$/Dth	\$3,3400	\$4,6250	\$7,2750	\$6,1590	\$4,0180	\$2,8730	\$2,5970	\$2,6780	\$2,9540	\$2,9340	\$2,4010	\$2,4600
BILLING UNITS													
FIXED													
ALGONQUIN AFT-E DEMAND VARIABLE	Dth	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714
PURCHASE VOLUMES	Dth	82,086	84,907	76,690	84,907	82,086	84,821	82,085	84,821	84,821	82,085	84,821	999,034
ALGONQUIN AFT-E USAGE	Dth	81,420	84,134	75,992	84,134	81,420	84,134	81,420	84,134	84,134	81,420	84,134	990,610
DELIVERED VOLUMES	Dth	81,420	84,134	75,992	84,134	81,420	84,134	81,420	84,134	84,134	81,420	84,134	990,610
FUEL USE %													
ALGONQUIN AFT-E FUEL	%	0,81%	0,91%	0,91%	0,91%	0,91%	0,91%	0,81%	0,81%	0,81%	0,81%	0,81%	0,81%
TRANSPORTATION COST													
FIXED													
ALGONQUIN AFT-E DEMAND VARIABLE	\$	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427
ALGONQUIN AFT-E USAGE PURCHASE COST	\$	\$1,010	\$1,043	\$1,043	\$942	\$1,043	\$1,010	\$1,043	\$1,010	\$1,043	\$1,010	\$1,043	\$1,043
TOTAL FIXED	\$	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427	\$17,427
TOTAL VARIABLE	\$	\$274,164	\$392,693	\$617,696	\$472,333	\$341,155	\$235,830	\$220,280	\$219,823	\$250,561	\$248,865	\$197,086	\$208,660
DELIVERED VOLUMES AT NYMEX	\$	\$319,574	\$336,957	\$342,846	\$308,831	\$336,115	\$305,976	\$315,250	\$307,768	\$320,887	\$310,292	\$322,401	\$3,848,626
NET NON-GAS VARIABLE COST	\$	\$44,400	\$56,780	\$275,893	\$64,444	\$6,083	\$69,137	\$63,927	\$69,282	\$71,820	\$112,698	\$112,698	\$157,196
AVERAGE NON-GAS VARIABLE COST	\$/Dth	\$0,6749	\$3,2792	\$2,1640	\$0,0723	\$0,8491	-\$1,1164	-\$1,0677	-\$0,8536	-\$1,3780	-\$1,3395	-\$1,3780	-\$0,1587
AVERAGE FIXED COST	\$/Dth												
AVERAGE COST AT 100% LOAD FACTOR	\$/Dth												
TOTAL PATH COST	\$/Dth												

\$0,0524

REDACTED VERSION

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2014 - 2015 GCR PROJECTED PRICES

REDACTED VERSION

CALCULATION OF SYSTEM WEIGHTED AVERAGE DEMAND COSTS

August 1, 2014

2014 - 2015 GCR PROJECTED PRICES

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
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Pipeline Fixed Cost Dollars

ALGONQUIN AFT-E/AFT-1 DEMAND	\$ 560,483	\$ 560,483	\$ 560,483	\$ 560,483	\$ 560,483	\$ 560,483	\$ 560,483	\$ 560,483	\$ 560,483	\$ 560,483	\$ 560,483
ALGONQUIN AFT-3 DEMAND	\$ 118,987	\$ 118,987	\$ 118,987	\$ 118,987	\$ 118,987	\$ 118,987	\$ 118,987	\$ 118,987	\$ 118,987	\$ 118,987	\$ 118,987
ALGONQUIN AFT-E/S1'S DEMAND	\$ 10,477	\$ 10,477	\$ 10,477	\$ 10,477	\$ 10,477	\$ 10,477	\$ 10,477	\$ 10,477	\$ 10,477	\$ 10,477	\$ 10,477
ALGONQUIN HUBLINE DEMAND	\$ 33,736	\$ 33,736	\$ 33,736	\$ 33,736	\$ 33,736	\$ 33,736	\$ 33,736	\$ 33,736	\$ 33,736	\$ 33,736	\$ 33,736
ALGONQUIN HUBLINE DEMAND	\$ 3,498	\$ 3,498	\$ 3,498	\$ 3,498	\$ 3,498	\$ 3,498	\$ 3,498	\$ 3,498	\$ 3,498	\$ 3,498	\$ 3,498
ALGONQUIN HUBLINE DEMAND	\$ 29,519	\$ 29,519	\$ 29,519	\$ 29,519	\$ 29,519	\$ 29,519	\$ 29,519	\$ 29,519	\$ 29,519	\$ 29,519	\$ 29,519
ALGONQUIN EAST TO WEST DEMAND	\$ 84,341	\$ 84,341	\$ 84,341	\$ 84,341	\$ 84,341	\$ 84,341	\$ 84,341	\$ 84,341	\$ 84,341	\$ 84,341	\$ 84,341
COLUMBIA FTS DEMAND	\$ 287,957	\$ 287,957	\$ 287,957	\$ 287,957	\$ 287,957	\$ 287,957	\$ 287,957	\$ 287,957	\$ 287,957	\$ 287,957	\$ 287,957
DOMINION FITN DEMAND	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250
IROQUOIS DEMAND	\$ 6,676	\$ 6,676	\$ 6,676	\$ 6,676	\$ 6,676	\$ 6,676	\$ 6,676	\$ 6,676	\$ 6,676	\$ 6,676	\$ 6,676
NATIONAL FUEL DEMAND	\$ 4,667	\$ 4,667	\$ 4,667	\$ 4,667	\$ 4,667	\$ 4,667	\$ 4,667	\$ 4,667	\$ 4,667	\$ 4,667	\$ 4,667
TENNESSEE FT-A DEMAND ZONE 0 TO 6	\$ 77,580	\$ 77,580	\$ 77,580	\$ 77,580	\$ 77,580	\$ 77,580	\$ 77,580	\$ 77,580	\$ 77,580	\$ 77,580	\$ 77,580
TENNESSEE FT-A DEMAND ZONE 1 TO 6	\$ 144,076	\$ 144,076	\$ 144,076	\$ 144,076	\$ 144,076	\$ 144,076	\$ 144,076	\$ 144,076	\$ 144,076	\$ 144,076	\$ 144,076
TENNESSEE FT-A DEMAND ZONE 0 TO 6	\$ 132,857	\$ 132,857	\$ 132,857	\$ 132,857	\$ 132,857	\$ 132,857	\$ 132,857	\$ 132,857	\$ 132,857	\$ 132,857	\$ 132,857
TENNESSEE FT-A DEMAND ZONE 1 TO 6	\$ 283,710	\$ 283,710	\$ 283,710	\$ 283,710	\$ 283,710	\$ 283,710	\$ 283,710	\$ 283,710	\$ 283,710	\$ 283,710	\$ 283,710
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	\$ 293,743	\$ 293,743	\$ 293,743	\$ 293,743	\$ 293,743	\$ 293,743	\$ 293,743	\$ 293,743	\$ 293,743	\$ 293,743	\$ 293,743
TENNESSEE FT-A DEMAND DRA/CUT	\$ 73,047	\$ 73,047	\$ 73,047	\$ 73,047	\$ 73,047	\$ 73,047	\$ 73,047	\$ 73,047	\$ 73,047	\$ 73,047	\$ 73,047
TENNESSEE FT-A DEMAND ZONE 5 TO 6	\$ 15,205	\$ 15,205	\$ 15,205	\$ 15,205	\$ 15,205	\$ 15,205	\$ 15,205	\$ 15,205	\$ 15,205	\$ 15,205	\$ 15,205
TEXAS EASTERN CDS STX DEMAND M3	\$ 263,743	\$ 263,743	\$ 263,743	\$ 263,743	\$ 263,743	\$ 263,743	\$ 263,743	\$ 263,743	\$ 263,743	\$ 263,743	\$ 263,743
TEXAS EASTERN CDS WLA DEMAND M3	\$ 94,181	\$ 94,181	\$ 94,181	\$ 94,181	\$ 94,181	\$ 94,181	\$ 94,181	\$ 94,181	\$ 94,181	\$ 94,181	\$ 94,181
TEXAS EASTERN CDS WLA DEMAND M3	\$ 44,382	\$ 44,382	\$ 44,382	\$ 44,382	\$ 44,382	\$ 44,382	\$ 44,382	\$ 44,382	\$ 44,382	\$ 44,382	\$ 44,382
TEXAS EASTERN CDS ELA DEMAND M3	\$ 56,401	\$ 56,401	\$ 56,401	\$ 56,401	\$ 56,401	\$ 56,401	\$ 56,401	\$ 56,401	\$ 56,401	\$ 56,401	\$ 56,401
TEXAS EASTERN CDS ETX DEMAND M3	\$ 17,493	\$ 17,493	\$ 17,493	\$ 17,493	\$ 17,493	\$ 17,493	\$ 17,493	\$ 17,493	\$ 17,493	\$ 17,493	\$ 17,493
TEXAS EASTERN CDS 1-3 DEMAND M3	\$ 471,421	\$ 471,421	\$ 471,421	\$ 471,421	\$ 471,421	\$ 471,421	\$ 471,421	\$ 471,421	\$ 471,421	\$ 471,421	\$ 471,421
TEXAS EASTERN FTS DEMAND	\$ 2,873	\$ 2,873	\$ 2,873	\$ 2,873	\$ 2,873	\$ 2,873	\$ 2,873	\$ 2,873	\$ 2,873	\$ 2,873	\$ 2,873
TEXAS EASTERN SCT STX DEMAND M3	\$ 1,554	\$ 1,554	\$ 1,554	\$ 1,554	\$ 1,554	\$ 1,554	\$ 1,554	\$ 1,554	\$ 1,554	\$ 1,554	\$ 1,554
TEXAS EASTERN SCT WLA DEMAND M3	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732	\$ 732
TEXAS EASTERN SCT ELA DEMAND M3	\$ 1,124	\$ 1,124	\$ 1,124	\$ 1,124	\$ 1,124	\$ 1,124	\$ 1,124	\$ 1,124	\$ 1,124	\$ 1,124	\$ 1,124
TEXAS EASTERN SCT ETX DEMAND M3	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288	\$ 288
TEXAS EASTERN SCT 1-3 DEMAND M3	\$ 6,618	\$ 6,618	\$ 6,618	\$ 6,618	\$ 6,618	\$ 6,618	\$ 6,618	\$ 6,618	\$ 6,618	\$ 6,618	\$ 6,618
TEXAS EASTERN SCT STX DEMAND M2	\$ 1,091	\$ 1,091	\$ 1,091	\$ 1,091	\$ 1,091	\$ 1,091	\$ 1,091	\$ 1,091	\$ 1,091	\$ 1,091	\$ 1,091
TEXAS EASTERN SCT WLA DEMAND M2	\$ 514	\$ 514	\$ 514	\$ 514	\$ 514	\$ 514	\$ 514	\$ 514	\$ 514	\$ 514	\$ 514
TEXAS EASTERN SCT ELA DEMAND M2	\$ 789	\$ 789	\$ 789	\$ 789	\$ 789	\$ 789	\$ 789	\$ 789	\$ 789	\$ 789	\$ 789
TEXAS EASTERN SCT ETX DEMAND M2	\$ 202	\$ 202	\$ 202	\$ 202	\$ 202	\$ 202	\$ 202	\$ 202	\$ 202	\$ 202	\$ 202
TEXAS EASTERN SCT 1-2 DEMAND M2	\$ 640	\$ 640	\$ 640	\$ 640	\$ 640	\$ 640	\$ 640	\$ 640	\$ 640	\$ 640	\$ 640
TRANSCANADA DEMAND	\$ 9,894	\$ 9,894	\$ 9,894	\$ 9,894	\$ 9,894	\$ 9,894	\$ 9,894	\$ 9,894	\$ 9,894	\$ 9,894	\$ 9,894
TRANSCO DEMAND ZONE 6 TO 6	\$ 4,857	\$ 4,857	\$ 4,857	\$ 4,857	\$ 4,857	\$ 4,857	\$ 4,857	\$ 4,857	\$ 4,857	\$ 4,857	\$ 4,857
UNION DEMAND	\$ 2,395	\$ 2,475	\$ 2,475	\$ 2,475	\$ 2,475	\$ 2,475	\$ 2,475	\$ 2,475	\$ 2,475	\$ 2,475	\$ 2,475
WESTERLY LATERAL (Yankee)	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$

TOTAL PIPELINE FIXED DEMAND CHARGES

TOTAL DEMAND UNITS DTH	5,340,885	5,551,170	5,013,900	5,551,170	5,340,885	5,486,659	4,854,210	5,016,017	4,854,210	5,486,659	63,063,012
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Average rate per unit per month
AVERAGE SYSTEM VARIABLE UNIT VALUE \$/DTH
Marketer Reconciliation 2013/14
Marketer Demand Units DTH
100% LOAD FACTOR UNIT VALUE \$/DTH

TOTAL AVERAGE SYSTEM UNIT VALUE \$/DTH

\$ 0.4080

REDACTED VERSION

National Grid 2014 Estimated GCR Normal Weather Scenario										VentyX SENDOUT® Version 12.5.5			
Natural Gas Supply VS. Requirements											Units: DTH	Total/Average	
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
07/31/2014 NYMEX		\$3.925	\$4.005	\$4.075	\$4.064	\$3.995	\$3.758	\$3.747	\$3.780	\$3.814	\$3.824	\$3.811	\$3.832
TENNESSEE ZONE 0 CONNEXION	Basis	(\$0.115)	(\$0.120)	(\$0.112)	(\$0.080)	(\$0.090)	(\$0.080)	(\$0.090)	(\$0.070)	(\$0.070)	(\$0.0235	(\$0.0235	(\$0.0235
Usage to Zn 6	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	\$0.0235	4.63%	4.63%	4.63%
Fuel to Zn 6	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%
Total Delivered	\$4.0164	\$4.1024	\$4.1705	\$4.1674	\$4.1286	\$3.8696	\$3.8685	\$3.8526	\$3.9493	\$3.9493	\$3.9472	\$3.9472	\$3.9472
TENNESSEE ZONE 0	Basis	(\$0.117)	(\$0.120)	(\$0.112)	(\$0.080)	(\$0.090)	(\$0.080)	(\$0.090)	(\$0.070)	(\$0.070)	(\$0.0235	(\$0.0235	(\$0.0235
Usage to Zn 6	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	\$0.3359	4.63%	4.63%	4.63%
Fuel to Zn 6	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%
Total Delivered	\$4.3288	\$4.4148	\$4.4829	\$4.4798	\$4.4410	\$4.1820	\$4.1809	\$4.2050	\$4.2617	\$4.2617	\$4.2375	\$4.2375	\$4.2375
TENNESSEE ZONE 1	Basis	(\$0.058)	(\$0.073)	(\$0.048)	(\$0.049)	(\$0.044)	(\$0.087)	(\$0.074)	(\$0.072)	(\$0.089)	(\$0.074)	(\$0.087)	(\$0.087)
Usage to Zn 6	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927	\$0.2927
Fuel to Zn 6	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%	4.06%
Total Delivered	\$4.3239	\$4.3911	\$4.4906	\$4.4776	\$4.4109	\$4.1190	\$4.1217	\$4.1581	\$4.1759	\$4.1759	\$4.1748	\$4.1748	\$4.1748
TENNESSEE ZONE 4 CONNEXION	Basis	(\$1.200)	(\$1.170)	(\$0.960)	(\$0.990)	(\$0.910)	(\$0.945)	(\$1.095)	(\$0.755)	(\$1.305)	(\$1.300)	(\$1.580)	(\$1.580)
Usage to Zn 6	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067	\$0.0067
Fuel to Zn 6	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%
Total Delivered	\$2.7770	\$2.8817	\$3.1656	\$3.1240	\$3.1352	\$2.8594	\$2.8594	\$2.6961	\$3.0743	\$2.5511	\$2.5663	\$2.2691	\$2.3411
TENNESSEE ZONE 4	Basis	(\$1.200)	(\$1.170)	(\$0.960)	(\$0.990)	(\$0.910)	(\$0.945)	(\$1.095)	(\$0.755)	(\$1.305)	(\$1.300)	(\$1.580)	(\$1.580)
Usage to Zn 6	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140	\$0.1140
Fuel to Zn 6	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%	1.39%
Total Delivered	\$2.8774	\$2.9890	\$3.2313	\$3.2313	\$3.2425	\$2.9667	\$2.9667	\$2.8034	\$3.1816	\$2.6584	\$2.6736	\$2.3764	\$2.4484
NIAGARA TO TENNESSEE	Basis	\$0.140	\$0.240	\$0.255	\$0.272	\$0.320	\$0.233	(\$0.077)	(\$0.246)	(\$0.391)	\$0.159	\$0.150	(\$1.530)
Temp usage	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	0.0861	0.0861	0.0861
Fuel	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%
Total Delivered	\$4.1942	\$4.3761	\$4.4620	\$4.4681	\$4.4469	\$4.1195	\$3.7950	\$3.6576	\$3.5454	\$4.1114	\$4.1114	\$4.1639	\$4.1639
TENNESSEE DRACUT	Basis	\$2.074	\$10.799	\$14.056	\$13.146	\$5.654	\$0.628	(\$0.986)	\$0.535	(\$0.184)	(\$0.536)	(\$0.969)	(\$0.622)
Temp usage	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	\$0.0354	0.0354	0.0354	0.0354
Fuel	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%
Total Delivered	\$6.0470	\$14.8706	\$18.2046	\$17.2816	\$9.7047	\$4.4306	\$2.8022	\$4.3959	\$3.6750	\$3.3303	\$2.8834	\$3.2622	\$3.2622
TETCO ELA	Basis	(\$0.055)	(\$0.075)	(\$0.061)	(\$0.078)	(\$0.045)	(\$0.110)	(\$0.120)	(\$0.107)	(\$0.110)	(\$0.097)	(\$0.107)	(\$0.106)
Usage to M3	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124
Fuel to M3	5.88%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	5.88%	5.88%	5.88%
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%
Total Delivered	\$4.2385	\$4.3546	\$4.4457	\$4.4154	\$4.3763	\$4.0007	\$3.9782	\$4.0275	\$4.0882	\$4.0714	\$4.0714	\$4.0832	\$4.0832
TETCO ETX	Basis	(\$0.116)	(\$0.103)	(\$0.071)	(\$0.062)	(\$0.064)	(\$0.049)	(\$0.062)	(\$0.052)	(\$0.052)	(\$0.059)	(\$0.059)	(\$0.059)
Usage to M3	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0801
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124
Fuel to M3	5.57%	6.31%	6.31%	6.31%	6.31%	6.31%	6.31%	6.31%	6.31%	6.31%	5.57%	5.57%	5.57%
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%
Total Delivered	\$4.1958	\$4.2963	\$4.4062	\$4.4062	\$4.3275	\$4.0562	\$4.0413	\$4.0413	\$4.0413	\$4.0413	\$4.1630	\$4.1630	\$4.1630

REDACTED VERSION

National Grid 2014 Estimated GCR Normal Weather Scenario									
Ventyx SENDOUT@Version 12.5.5									
Natural Gas Supply VS. Requirements									
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
TETCO STX									
Basis	(\$0.083)	(\$0.090)	(\$0.067)	(\$0.065)	(\$0.057)	(\$0.012)	(\$0.003)	(\$0.012)	(\$0.012)
Usage to M3	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864	\$0.0864
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124
Fuel to M3	6.87%	6.87%	6.87%	6.87%	6.87%	5.83%	5.83%	5.83%	5.83%
Fuel on AGT	0.91%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%
Total Delivered	\$4.2127	\$4.3420	\$4.4428	\$4.4330	\$4.3669	\$4.1099	\$4.1335	\$4.1913	\$4.1656
TETCO WLA									
Basis	(\$0.102)	(\$0.063)	(\$0.077)	(\$0.039)	(\$0.0801)	\$0.0801	\$0.0801	\$0.0801	\$0.0801
Usage to M3	\$0.0801	\$0.0801	\$0.0801	\$0.0801	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124
Fuel to M3	5.83%	6.93%	6.93%	6.93%	6.93%	5.88%	5.88%	5.88%	5.88%
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%
Total Delivered	\$4.1882	\$4.3677	\$4.4284	\$4.4577	\$4.4045	\$8.2810	\$2.1101	\$1.7202	\$2.8781
TETCO M2									
Basis	(\$1.141)	(\$0.956)	(\$0.810)	(\$0.817)	(\$0.892)	(\$0.950)	(\$1.205)	(\$1.296)	(\$1.282)
Usage on AGT	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505	\$0.0505
Fuel on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124
Total Delivered	\$3.6896	4.153%	4.153%	4.13%	4.13%	3.69%	3.69%	3.69%	3.69%
TETCO M3 DELIVERED									
Basis	(\$0.620)	\$3.200	\$2.095	\$0.023	(\$0.885)	(\$1.150)	(\$1.102)	(\$0.860)	(\$0.890)
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%
Total Delivered	\$3.9776	\$3.2729	\$3.5003	\$3.4913	\$3.3298	\$3.0027	\$2.7243	\$2.7222	\$2.4322
COLUMBIA MAUMEE									
Basis	(\$0.120)	(\$0.155)	(\$0.180)	(\$0.170)	(\$0.175)	(\$0.145)	(\$0.215)	(\$0.280)	(\$0.350)
Usage on Columbia	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124
Fuel on Columbia	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%
Total Delivered	\$3.9402	\$3.9904	\$4.0367	\$4.0357	\$3.9596	\$3.7768	\$3.7315	\$3.6935	\$3.6616
COLUMBIA BROADRUN									
Basis	(\$0.120)	(\$0.155)	(\$0.180)	(\$0.170)	(\$0.175)	(\$0.145)	(\$0.215)	(\$0.280)	(\$0.350)
Usage on Columbia	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124
Fuel on Columbia	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%
Total Delivered	\$3.9402	\$3.9904	\$4.0367	\$4.0357	\$3.9596	\$3.7768	\$3.7315	\$3.6935	\$3.6616
COLUMBIA EAGLE									
Basis	(\$0.585)	\$0.620	\$3.200	\$2.095	\$0.023	(\$0.885)	(\$1.150)	(\$1.102)	(\$0.860)
Usage on Columbia	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124
Fuel on Columbia	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%
Total Delivered	\$3.4622	\$4.7879	\$7.5145	\$6.3662	\$4.1633	\$2.9822	\$2.7818	\$2.4971	\$2.5577

REDACTED VERSION

SENDOUT® Version 12.5.5									
National Grid 2014 Estimated GCR Normal Weather Scenario									
Natural Gas Supply VS. Requirements									
Units: DTH									
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
COLUMBIA DOWNTOWN									
Basis	(\$0.410)	\$0.920	\$2.123	\$3.325	\$0.085	(\$0.628)	(\$1.015)	(\$1.000)	(\$0.738)
Usage on Columbia	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	(\$1.113)
Usage on AGT	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	(\$1.070)
Fuel on Columbia	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%	1.917%
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%
Total Delivered	\$3.6421	\$5.0965	\$6.4063	\$7.6318	\$4.2271	\$3.2464	\$2.8373	\$2.8866	\$2.8023
TETCO -> NF -> TRANSCO									
Basis	(\$0.055)	(\$0.061)	(\$0.061)	(\$0.078)	(\$0.045)	(\$0.110)	(\$0.120)	(\$0.107)	(\$0.110)
Usage to M2	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147
Usage on NF	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160	\$0.0160
Usage on Transco	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068	\$0.0068
Usage on AGT	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285
Fuel to M2	4.93%	5.68%	5.68%	5.68%	5.68%	4.93%	4.93%	4.93%	4.93%
Fuel on NF	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%	1.10%
Fuel on Transco	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%	0.24%
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%
Delivered to NF	\$4.4854	\$4.5818	\$4.6709	\$4.6412	\$4.6030	\$4.2519	\$4.2298	\$4.2782	\$4.3181
Delivered to Transco	\$4.5513	\$4.6488	\$4.7388	\$4.7088	\$4.6702	\$4.3152	\$4.2928	\$4.3418	\$4.3822
Delivered to Algonquin	\$4.6690	\$4.6667	\$4.7570	\$4.7269	\$4.6882	\$4.3323	\$4.3099	\$4.3589	\$4.3985
Total Delivered	\$4.8348	\$4.9381	\$5.0292	\$4.9888	\$4.9598	\$4.5962	\$4.5736	\$4.6230	\$4.6639
TETCO -> DTI -> TETCO									
Basis	(\$0.055)	(\$0.075)	(\$0.061)	(\$0.078)	(\$0.045)	(\$0.110)	(\$0.120)	(\$0.107)	(\$0.110)
Usage to M2	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147	\$0.4147
Usage on Dominion	\$0.0202	\$0.0202	\$0.0202	\$0.0202	\$0.0202	\$0.0202	\$0.0202	\$0.0202	\$0.0202
Usage on Tetco	\$0.0012	\$0.0012	\$0.0012	\$0.0012	\$0.0012	\$0.0012	\$0.0012	\$0.0012	\$0.0012
Usage on AGT	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285
Fuel to M2	4.93%	5.69%	5.69%	5.69%	5.69%	4.93%	4.93%	4.93%	4.93%
Fuel on Dominion	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%
Fuel on Tetco	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%
Delivered to Dominion	\$4.4854	\$4.5818	\$4.6709	\$4.6412	\$4.6030	\$4.2519	\$4.2298	\$4.2782	\$4.3181
Delivered to Tetco	\$4.5948	\$4.6931	\$4.7800	\$4.7537	\$4.7148	\$4.3566	\$4.3341	\$4.3935	\$4.4419
Delivered to Algonquin	\$4.5560	\$4.7557	\$4.8477	\$4.8170	\$4.7776	\$4.4148	\$4.3919	\$4.4432	\$4.4865
Total Delivered	\$4.9226	\$5.0278	\$5.1207	\$5.0898	\$5.0499	\$4.6793	\$4.6563	\$4.7067	\$4.7483
TETCO to B&W - SCT									
Basis	(\$0.055)	(\$0.061)	(\$0.061)	(\$0.078)	(\$0.045)	(\$0.110)	(\$0.120)	(\$0.107)	(\$0.110)
Usage on Tetco	\$0.5099	\$0.5099	\$0.5099	\$0.5099	\$0.5099	\$0.5099	\$0.5099	\$0.5099	\$0.5099
Usage on AGT	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285	\$0.2285
Fuel to M3	5.84%	6.85%	6.85%	6.85%	6.85%	5.84%	5.84%	5.84%	5.84%
Fuel on AGT	0.81%	0.91%	0.91%	0.91%	0.91%	0.81%	0.81%	0.81%	0.81%
Total Delivered	\$4.8862	\$5.0008	\$5.0918	\$5.0615	\$5.0225	\$4.6485	\$4.6260	\$4.6752	\$4.7159
AGT HUBLINE									
Basis	\$2.060	\$10.725	\$13.960	\$13.055	\$5.615	\$0.525	(\$0.835)	\$0.452	(\$0.190)
AGT Usage	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	\$0.0124	(\$0.530)
AGT Fuel	0.54%	0.62%	0.62%	0.62%	0.62%	0.54%	0.54%	0.54%	0.54%
Total Delivered	\$6.0299	\$14.8343	\$18.1599	\$17.2382	\$9.6824	\$4.3187	\$4.29402	\$4.2674	\$4.3243
DOWN TO TENNESSEE - ANE II									
Basis	\$0.0042	\$0.0042	\$0.0042	\$0.0042	\$0.0042	\$0.000	\$0.000	\$0.000	\$0.000
Iroquois usage	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0861	\$0.0042	\$0.0042	\$0.0042	\$0.0042
Tenn usage	0.00%	0.00%	0.00%	0.00%	0.00%	\$0.0861	\$0.0861	\$0.0861	\$0.0861
Fuel on Iroquois	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%	1.05%
Total Delivered						\$3.8882	\$3.8771	\$3.9448	\$3.9549

National Grid
2014 Estimated GCR
Normal Weather Scenario

Ventyx
SENDOUT® Version 12.5.5

		Natural Gas Supply VS. Requirements												
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TETCO ETX														
Delivered MMBtu	0	\$4,1598	0	\$4,2963	\$4,4062	\$4,4040	\$4,3275	\$4,0562	\$4,0413	0	0	\$4,1096	\$4,1630	\$4,0989
Delivered Price	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,1672
Total Delivered Cost														\$0
TETCO STX														
Delivered MMBtu	0	\$4,213	0	\$4,342	\$4,443	\$4,433	\$4,367	\$4,110	\$4,108	0	0	\$4,191	\$4,202	\$4,166
Delivered Price	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,169
Total Delivered Cost														\$0
TETCO WLA														
Delivered MMBtu	0	\$4,1882	0	\$4,3677	\$4,4284	\$4,4577	\$4,4045	\$8,2810	\$2,1101	0	0	\$4,0382	\$2,8781	\$6,0177
Delivered Price	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Delivered Cost														
TETCO M2														
Delivered MMBtu	765,100	796,000	773,700	698,800	773,700	274,100	274,100	274,100	274,100	525,200	492,900	544,200	784,000	
Delivered Price	\$2,8776	\$3,2229	\$3,5003	\$3,4813	\$3,3298	\$3,0027	\$2,7243	\$2,6835	\$2,7243	\$2,7243	\$2,7243	\$2,4322	\$2,4594	
Total Delivered Cost	\$2,278,149	\$2,605,244	\$2,708,177	\$2,432,764	\$2,576,237	\$823,042	\$746,720	\$2,068,776	\$1,429,682	\$1,342,788	\$1,323,606	\$1,928,186		
TETCO M3 DELIVERED														
Delivered MMBtu	400,800	128,300	243,300	234,700	122,200	1,353,200	1,058,800	295,600	295,600	0	0	\$2,9704	\$2,4330	\$2,4925
Delivered Price	\$3,3797	\$4,6799	\$7,3542	\$6,2280	\$4,0673	\$2,9089	\$2,6306	\$2,7123	\$2,7123	\$2,9905	\$2,9905	\$0	\$65,691	\$595,206
Total Delivered Cost	\$1,354,574	\$600,428	\$1,789,279	\$1,461,703	\$497,024	\$3,936,271	\$2,785,287	\$801,747	\$801,747	\$0	\$0	\$0	\$0	
COLUMBIA MAUMEE														
Delivered MMBtu	103,200	83,400	911,500	798,100	730,000	58,700	0	0	0	0	0	0	0	
Delivered Price	\$3,3402	\$3,3904	\$4,0367	\$4,0357	\$3,956	\$3,7768	\$3,7315	\$3,6335	\$3,6335	\$3,6616	\$3,6616	\$3,6000	\$3,3841	
Total Delivered Cost	\$406,627	\$3,333,620	\$3,679,496	\$3,220,907	\$2,890,493	\$221,695	\$74,780	\$0	\$0	\$0	\$0	\$0	\$0	
COLUMBIA BROADRUN														
Delivered MMBtu	34,200	307,200	267,600	257,600	19,800	0	0	0	0	0	0	0	0	
Delivered Price	\$3,9402	\$3,9904	\$4,0367	\$4,0357	\$3,956	\$3,7768	\$3,7315	\$3,6335	\$3,6335	\$3,6616	\$3,6616	\$3,6000	\$3,3841	
Total Delivered Cost	\$134,754	\$1,225,865	\$1,240,089	\$1,079,958	\$1,019,988	\$74,780	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
COLUMBIA EAGLE														
Delivered MMBtu	39,400	49,800	72,700	67,800	28,500	63,800	45,300	44,400	42,100	40,800	40,800	26,500	15,100	
Delivered Price	\$3,4622	\$4,879	\$7,545	\$6,362	\$4,1633	\$2,9822	\$2,6985	\$2,7518	\$3,0055	\$3,0449	\$3,0449	\$2,4971	\$2,5577	
Total Delivered Cost	\$136,412	\$238,435	\$546,301	\$431,628	\$118,654	\$190,265	\$122,243	\$123,511	\$37,092	\$124,232	\$124,232	\$66,172	\$38,621	
COLUMBIA DOWNTONTOWN														
Delivered MMBtu	33,900	41,700	105,800	68,600	27,600	24,200	0	500	\$2,8366	\$3,2217	\$3,2011	\$2,8023	0	
Delivered Price	\$3,5421	\$5,9865	\$6,4063	\$7,6318	\$4,2271	\$2,464	\$78,562	\$1,443	\$0	\$0	\$0	\$0	\$0	
Total Delivered Cost	\$123,467	\$212,525	\$677,789	\$523,558	\$116,688	\$78,562	\$1,443	\$0	\$0	\$0	\$0	\$0	\$0	

REDACTED VERSION

The Narragansett Electric Company
d/b/a National Grid
Docket No. 4520
Attachment EDA-4
Redacted
September 2, 2014
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National Grid		2014 Estimated GCR Normal Weather Scenario										Ventyx SENDOUT® Version 12.5.5		Units: DTH		Total/Average
		Natural Gas Supply v/S. Requirements														
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT			
TETCO -> NF -> TRANSCO		15,200	36,300	35,200	32,800	36,300	\$4,9988	\$4,5962	\$4,6230	\$4,6639	\$4,6671	\$4,6671	0	0	\$4,6789	0
Delivered MMBtu		\$4,9384	\$4,9381	\$5,0292	\$4,9988	\$180,039	\$163,961	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Delivered Price		\$73,489	\$179,252	\$177,027												
Total Delivered Cost																
TETCO -> DTI -> TETCO		2,700	8,500	8,200	6,900	8,500	\$4,0499	\$4,6793	\$4,6563	\$4,7067	\$4,7483	\$4,7516	0	0	\$4,7637	0
Delivered MMBtu		\$4,9226	\$6,0278	\$5,1207	\$5,0898	\$35,119	\$41,990	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Delivered Price		\$13,291	\$42,737													
Total Delivered Cost																
TETCO to B&W - SCT		50,600	62,400	60,600	54,700	60,600	\$5,0225	\$4,6485	\$4,6280	\$4,6752	\$4,7159	\$4,7191	0	0	\$4,7309	0
Delivered MMBtu		\$4,8862	\$5,0008	\$5,0918	\$5,0615	\$276,864	\$304,363	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Delivered Price		\$247,239	\$312,052													
Total Delivered Cost																
TETCO HUBLINE		100	108,300	92,400	130,600	24,700	\$4,3187	\$2,9402	\$4,2674	\$3,6561	\$3,3243	\$3,0046	0	0	\$3,2871	0
Delivered MMBtu		\$6,0299	\$14,8343	\$18,1599	\$17,2382	\$9,6824	\$864	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Delivered Price		\$6,603	\$1,606,554	\$1,677,976	\$2,251,309	\$239,154										
Total Delivered Cost																
AGT HUBLINE		30,000	31,000	31,000	28,000	31,000	\$3,8882	\$3,8771	\$3,9105	\$3,9448	\$3,9549	\$3,9418	0	0	\$3,9630	0
Delivered MMBtu																
Delivered Price																
Total Delivered Cost																
DAWN TO TENNESSEE - ANE II																
Delivered MMBtu																
Delivered Price																
Total Delivered Cost																
Total Pipeline Costs																
Total Pipeline Volumes		2,065,600	3,190,100	3,578,900	3,263,200	2,782,500	\$7,492,449	\$4,361,606	\$3,938,069	\$3,175,799	\$3,166,528	\$3,071,423	\$4,400,165	\$94,650,915		
WACOG																
Injections Value at WACOG		0	0	0	0	0	\$0	\$1,432,593	\$1,313,863	\$1,432,176	\$1,244,056	\$1,321,125	\$1,376,845	\$1,270,498	\$1,270,498	\$1,270,498
Pipeline Costs less Injections																
Pipeline Volumes less Injections																
NYMEX cost of Supplies																
Non-gas cost of delivered supplies																
NYMEX -> TETCO																
Delivered MMBtu																
Delivered Price																
Total Delivered Cost																
NYMEX -> B&W																
Delivered MMBtu																
Delivered Price																
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d/b/a NATIONAL GRID
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2014 GAS COST RECOVERY FILING
WITNESS: ELIZABETH D. ARANGIO
SEPTEMBER 2, 2014**

EDA-5 FT-2 Operational Parameters

Operational Parameters
Non-Daily Metered FT-2 Storage and Peaking Resources

The following Operational Parameters are pursuant to RIPUC NG No. 101, Section 6, Schedule C:

Effective Period: November 1, 2014 through October 31, 2015

Underground Storage:

Maximum Inventory Level at any time is 100% of MSQ-U
Injections are not allowed.

Minimum Inventory Levels:

November 1	97%
November 15	95%
December 1	92%
December 15	83%
January 1	72%
January 15	62%
February 1	50%
February 15	40%
March 1	30%
March 15	21%
April 1	11%

Peaking Inventory:

Inventory Level allocated on November 1, 2014 = MSQ-P
Injections are not allowed.

Minimum Inventory Levels:

November 1	98%
January 1	94%
February 1	28%
March 1	2%
April 1	0%

MSQ-U	Maximum Storage Quantity - Underground
MDQ-U	Maximum Daily Quantity - Underground
MSQ-P	Maximum Storage Quantity - Peaking
MDQ-P	Maximum Daily Quantity - Peaking

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EDA-6 FT-2 Storage Variable Costs

FT-2 Storage Variable Costs

SLF - Weighted Average Loss Factor on Storage Withdrawals				
<u>Storage</u>	<u>Withdrawals</u>	<u>Fuel %</u>	<u>Fuel Vol.</u>	<u>Fuel Avg.</u>
TENN 501	559,900	0.00%	0	
GSS 300170	409,000	0.00%	0	
GSS 300168	145,800	0.00%	0	
GSS 300171	183,200	0.00%	0	
GSS-TE 600045	394,100	0.00%	0	
TETCO 400515	55,100	0.79%	435	
TETCO 400221	1,152,400	2.99%	34,457	
TETCO 400185	50,400	2.99%	1,507	
GSS 300169	198,700	0.00%	0	
COL FSS 9630	204,100	0.00%	0	
TENN 62918	<u>206,300</u>	0.00%	<u>0</u>	
	3,559,000		36,399	1.0227%

WWCC - Weighted Average Commodity Cost of Storage Withdrawals				
<u>Storage</u>	<u>Withdrawals</u>	<u>Unit Cost</u>	<u>Cost</u>	<u>Average</u>
TENN 501	559,900	\$0.0087	\$4,871	
GSS 300170	409,000	\$0.0182	\$7,444	
GSS 300168	145,800	\$0.0182	\$2,654	
GSS 300171	183,200	\$0.0182	\$3,334	
GSS-TE 600045	394,100	\$0.0229	\$9,025	
TETCO 400515	54,665	\$0.0404	\$2,208	
TETCO 400221	1,117,943	\$0.0646	\$72,219	
TETCO 400185	48,893	\$0.0646	\$3,158	
GSS 300169	198,700	\$0.0182	\$3,616	
COL FSS 9630	204,100	\$0.0153	\$3,123	
TENN 62918	<u>206,300</u>	\$0.0087	<u>\$1,795</u>	
	3,522,601		\$113,448	\$0.0322

PLF - Weighted Average Loss Factor on Pipeline Contracts Used to Deliver Storage Withdrawals				
<u>Storage</u>	<u>Transported</u>	<u>Fuel %</u>	<u>Fuel Vol.</u>	<u>Fuel Avg.</u>
TENN 501	559,900		1.39%	7,783
GSS 300170	409,000	1.95%	1.39%	13,550
GSS 300168	145,800		1.39%	2,027
GSS 300171	183,200	1.29%	0.91%	4,009
GSS-TE 600045	394,100	1.50%	0.91%	9,444
TETCO 400515	54,665	3.43%	0.91%	2,358
TETCO 400221	1,117,943		0.91%	10,173
TETCO 400185	48,893		0.91%	445
GSS 300169	198,700	1.95%	0.00%	0.91%
COL FSS 9630	204,100		1.917%	5,648
TENN 62918	<u>206,300</u>		1.39%	<u>5,734</u>
	3,522,601			64,037
				1.8179%

PCC - Weighted Average Commodity Cost on Pipeline Contracts Used to Deliver Storage Withdrawals				
<u>Storage</u>	<u>Withdrawals</u>	<u>Unit Cost</u>	<u>Cost</u>	<u>Average</u>
TENN 501	552,000		\$0.1140	\$62,928
GSS 300170	395,500	\$0.0202	\$0.1140	\$53,076
GSS 300168	143,700		\$0.1140	\$16,382
GSS 300171	179,100	\$0.0012	\$0.0124	\$2,436
GSS-TE 600045	384,400	\$0.0012	\$0.0124	\$5,228
TETCO 400515	52,000	\$0.0415	\$0.0124	\$2,801
TETCO 400221	1,107,100		\$0.0124	\$13,728
TETCO 400185	48,500		\$0.0124	\$601
GSS 300169	193,200	\$0.0202	\$0.0012	\$6,530
COL FSS 9630	198,200		\$0.0164	\$5,708
TENN 62918	<u>203,500</u>		\$0.1140	<u>\$23,199</u>
	3,457,200			\$192,617
				\$0.0557

Testimony of
Ann E. Leary

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
GAS COST RECOVERY FILING
WITNESS: ANN E. LEARY
SEPTEMBER 2, 2014**

DIRECT TESTIMONY

OF

ANN E. LEARY

September 2, 2014

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
GAS COST RECOVERY FILING
WITNESS: ANN E. LEARY
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1 I. Introduction

2 Q. Please state your name and business address.

3 A. My name is Ann E. Leary. My business address is 40 Sylvan Road, Waltham,
4 Massachusetts, 02451.

5

6 Q. What is your position and responsibilities?

7 A. I am the Manager of New England Gas Pricing for National Grid USA Service
8 Company, Inc. As such, I am responsible for preparing and submitting various
9 regulatory filings with the Rhode Island Public Utilities Commission (PUC) on
10 behalf of The Narragansett Electric Company d/b/a National Grid (Company),
11 and the Massachusetts Department of Public Utilities on behalf of Boston Gas
12 Company and Colonial Gas Company each d/b/a National Grid.

13

14 Q. Please describe your educational and professional background.

15 A. I received a Bachelor of Science in Mechanical Engineering from Cornell
16 University in 1983. In 1985, I joined the Essex County Gas Company as Staff
17 Engineer. In 1987, I became a planning analyst and later accepted the position of
18 Manager of Rates. Following the merger with Eastern Enterprises in 1998, I
19 became Manager of Pricing for Boston Gas Company. After the merger with
20 KeySpan Energy Delivery, subsequently National Grid, I became the Manager of
21 New England Gas Pricing, the position I hold today.

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- 1 **Q. Have you previously testified or appeared before the PUC?**
- 2 A. Yes I have. I have testified before the PUC regarding the Company's Gas Cost
3 Recovery (GCR) Filing, Docket Nos. 4436 and 4346. I also submitted pre-filed
4 testimony in the Company's 2012 Rate Case Filing, Docket No. 4323. In
5 addition, I have testified extensively in several ratemaking and regulatory
6 proceedings before the Massachusetts Department of Public Utilities and the New
7 Hampshire Public Utilities Commission.
- 8
- 9 **Q. What is the purpose of your testimony?**
- 10 A. The purpose of this testimony is to propose the GCR factors to become effective
11 on November 1, 2014 for the following services: (1) Firm sales service to
12 customers in the Residential Non-Heating and Heating rate classes as well as
13 Commercial and Industrial (C&I) firm sales customers in the Small, Medium,
14 Large, and Extra Large rate classes and (2) transportation services provided to
15 Gas Marketers and the associated Gas Marketer Fixed Charges and factors.
- 16
- 17 **Q. How is your testimony organized?**
- 18 A. My testimony is composed of four general sections:
19 I. Introduction; II. GCR Rate Development; III. Residential Non-Heating
20 Customers; and IV. Bill Impacts.
- 21

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1 **Q. Are you including any Attachments with your testimony?**

2 A. Yes. I am sponsoring the following Attachments:

3 Attachment AEL-1 Gas Cost Recovery Factors

4 Attachment AEL-2 Annual GCR Reconciliation Filing

5 Attachment AEL-3 Projected Gas Cost Balances

6 Attachment AEL-4 Bill Impact Analysis

7 Attachment AEL-5 FT-2 Demand Rate

8 Attachment AEL-6 FT-2 Capacity Allocator Percentages

9 Attachment AEL-7 Marketer Reconciliation

10

11 **II. GCR Rate Development**

12 **Q. Please provide an overview of the development of the proposed GCR factors.**

13 A. The proposed GCR factors reflect the load specific (high load and low load) factors necessary for the Company to recover the projected gas costs allocated to firm sales customers for the period November 1, 2014 through October 31, 2015.

16 As shown in the testimony of Company witness Ms. Elizabeth D. Arangio on Attachment EDA-1, firm sales customers' gas costs for the period are projected to be approximately \$146.4 million for the twelve months ended October 2015. In addition to these projected costs, the GCR factors also include recovery of working capital costs, inventory financing costs, prior period reconciliations, LNG operation and maintenance (O&M) costs, as well as credits for FT-2 Market

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1 Storage Demand and LNG costs allocated to the Distribution Adjustment Clause
2 (DAC) factors. The table below summarizes the costs and credits included in the
3 2014-2015 GCR:

4

GCR Component	Amount (millions)	Reference
Firm Gas Costs	\$146.4	EDA-1
Working Capital Costs	\$0.9	AEL-1, page 2, line 9 and page 3, line 5
Inventory Financing Costs	\$1.3	AEL-1, page 3, lines 8-9
Prior Period Deferred Balance (Includes the Marketer Fixed Costs Reconciliation)	\$29.0	AEL-1, page 2, lines 10-11 and page 3, line 6
LNG Operation and Maintenance (O&M) Costs	\$1.1	Docket No. 4323, AEL-1, page 2, line 8 and page 3, line 7
FT-2 Marketer Storage Demand Costs	(\$1.6)	AEL-1, page 2, line 4
LNG Costs collected via the Distribution Adjustment Clause ("DAC") Factor	(\$1.5)	AEL-1, page 2, line 5
Total	\$175.6	AEL-1, page 2, line 13 + AEL-1, page 3 line 11

5

6

7 Thus, the GCR factors are intended to recover approximately \$175.6 million in
8 net costs over the period November 2014 through October 2015.

9

10 **Q. At a high level, please explain how the proposed GCR factors were derived.**

11 A. The proposed GCR factors were developed based upon the Fixed and Variable
12 cost components. Attachment AEL-1 provides a summary of the GCR fixed and

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1 variable gas cost components used to derive the rates for which the Company
2 seeks approval in this filing for effect November 1, 2014.

3

4 **Q. Please describe how the fixed cost component of the proposed GCR was**
5 **developed.**

6 A. The fixed cost component includes all of the fixed costs related to the purchase,
7 storage, and delivery of firm gas for both the high load factor and low load factor
8 customers. As shown on Attachment AEL-1, page 2, the fixed cost component is
9 derived by taking the total fixed costs (reduced by Capacity Release credits), less
10 any credits such as Natural Gas Portfolio Management Plan (NGPMP) customer
11 credits, LNG demand costs allocated to the DAC factors, and storage demand
12 costs billed to FT-2 Marketers. The FT-2 storage demand costs are calculated by
13 multiplying the FT-2 Demand Charge rate by the forecast of storage and peaking
14 Maximum Daily Quantity (MDQ) to be billed to FT-2 Marketers. Adjustments
15 are also made for supply-related LNG costs, working capital costs, and prior
16 period deferred fixed gas costs under/over-collection balances, including an
17 adjustment for the Marketer fixed cost reconciliation as stipulated in the
18 Settlement Agreement between the Company and the Division in Docket No.
19 4199. This results in total fixed gas costs of \$28.1 million that are to be recovered
20 over the period November 2014 through October 2015. Finally, because the
21 Company's gas-supply resources are planned so that there is sufficient capacity to

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1 meet the needs of firm sales customers under design winter conditions, the total
2 Fixed Gas Costs are allocated between high load factor and low load factor
3 customers based on their proportion of design-winter use. The high load and low
4 load GCR factors are derived using the allocated supply fixed costs and dividing
5 them by the projected throughput for the upcoming year for each group.
6 Accordingly, the GCR fixed low load factor is \$1.0659 per dekatherm while the
7 GCR fixed high load factor is \$0.8898 per dekatherm.

8

9 **Q. Please describe how the Company calculated the Marketer fixed cost
10 reconciliation balance?**

11 A. In accordance with the Settlement Agreement approved in Docket No. 4199, the
12 Company includes an annual reconciliation of Marketer fixed costs. The
13 Company calculated the Marketer reconciliation by updating the 2013/2014
14 pipeline surcharge/credit for each path based on actual instead of projected
15 pipeline capacity costs. The Company then compared the pipeline
16 surcharge/credit approved in Docket No. 4436 for each path with the updated
17 actual pipeline surcharge/credit and multiplied this variance by the Marketer's
18 actual monthly capacity for the months of November 2013 through July 2014 and
19 forecasted monthly capacity for the months of August 2014 through October
20 2014. This results in a Marketer surcharge of \$23,024. The Company is also
21 updating to the 2012/2013 Marketer reconciliation to replace the Marketers'

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1 forecasted monthly capacity for the months of August through October 2013 with
2 their actual monthly capacity and to recalculate the 2012/2013 Marketer
3 reconciliation. In addition, the Company is reconciling the actual revenues billed
4 to Marketers during the period November 2013 through October 2014 with the
5 actual 2012/2013 Marketer reconciliation. This results in a Marketer surcharge of
6 \$57,093 for the 2012/2013 period. Therefore, the overall total Marketer
7 reconciliation for the two year period totals \$80,117. Attachment AEL-7 shows
8 the calculation of the Marketer reconciliation adjustment for both the 2012/2013
9 and 2013/2014 periods. In addition to crediting firm sales customers fixed costs
10 for this amount, the Company included this reconciliation in its calculation of the
11 2014/2015 pipeline surcharge/credits, as detailed in Ms. Arangio's testimony and
12 shown on Attachment EDA-4.

13

14 **Q. How did the Company develop its design winter calculations?**

15 A. The Company developed its design winter calculation using calendar month
16 degree days consistent with the PUC's finding in Docket No. 4097.

17

18 **Q. Please describe how the variable cost component was derived.**

19 A. The variable cost component includes all variable costs of gas such as commodity
20 costs, supply-related LNG O&M, working capital, inventory finance costs,
21 pipeline refunds, and deferred cost balances. As shown on Attachment AEL-1,

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1 page 3, line 11, the total variable costs for the period November 2014 through
2 October 2015 is \$147,555,590. The variable costs are divided by the projected
3 throughput of 26,528,190 Dths to obtain a variable cost factor of \$5.5622 per Dth.

4

5 **Q. What is the Company's estimate of the deferred gas cost balance at the end**
6 **of the current GCR period?**

7 A. Based on actual data through July 2014 and forecasted data for the months of
8 August through October 2014, the total estimated deferred balance at October 31,
9 2014 is an under collection of \$29,031,120 as shown in Attachment AEL-1, page
10 6. This balance is incorporated into the development of the proposed GCR factors
11 for the period November 1, 2014 to October 31, 2015. In addition, the Company
12 shows the projected deferred gas cost balances for the November 2014 through
13 October 2015 in Attachment AEL-3.

14

15 **Q. Is the Company proposing any changes to the GCR deferral balance for the**
16 **period April 2013 through March 2014 filed with the Commission on July 1,**
17 **2014?**

18 A. Yes. In Attachment AEL-2 the Company has revised its 2013/2014 Annual
19 Deferred Gas Cost Report to reflect a revision to its NGPMP credit. As detailed
20 in the testimony of Company witness Mr. Stephen A. McCauley, the Company
21 has revised the customer excess earnings amount included in the NGPMP credit.

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1 In addition, the NGPMP credit included in the July 1, 2014 Annual Deferred Gas
2 Cost Report erroneously included Asset Management Agreement (AMA) credits,
3 which had already been included as credits to the Company's fixed gas costs. The
4 change to the customer excess earnings results in an increase in the NGPMP
5 credit of \$165,440 while the elimination of the AMA credits results in a decrease
6 in the NGPMP credit of \$231,625. Consequently, there is a net decrease of
7 \$66,185 in the total NGPMP credit and an increase in the amount of deferred gas
8 costs reported in the Annual Deferred Gas Cost Report at March 31, 2014 of
9 \$66,185 plus \$35 in associated interest, for a total of \$66,220. The Company has
10 incorporated these changes to its NGPMP results in Attachment AEL-2.

11

12 **Q. Are there other rates the Company is proposing in this filing?**

13 A. Yes. Consistent with the modifications in Docket No. 4270, the Company is
14 submitting for approval its FT-2 Marketer Demand rate of \$8.7038 per MDQ in
15 Dth/month as shown in Attachment AEL-5. In addition, the Company is also
16 submitting for approval the capacity assignment percentages for the high load and
17 low load factors to be used in the determination of pipeline, underground storage,
18 and peaking capacity for Marketers. These percentages are set forth in
19 Attachment AEL-6.

20

21 **Q. Please describe how the proposed FT-2 Marketer Demand rate is calculated.**

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1 A. It is worth noting that the FT-2 rate design approved in Docket No. 4270
2 separates storage costs into two components: (1) the FT-2 Demand rate designed
3 to recover the fixed costs associated with storage and peaking, which the
4 Company is submitting for approval in this filing, and (2) the FT-2 variable rate
5 that is designed to recover variable underground storage costs, as well as the
6 associated commodity costs and loss factors associated with pipeline contracts to
7 bring the gas from storage to the city gate. In addition, Marketers may purchase
8 peaking inventory at the Company's cost of LNG inventory.

9
10 The FT-2 Demand rate is derived by first totaling the fixed storage costs,
11 associated inventory finance, working capital charges, and supply-related LNG
12 O&M costs less any LNG demand credits assigned to the DAC factors and any
13 refunds, if applicable. That total is then divided by the total storage and peaking
14 MDQ for the year to derive a monthly per dekatherm rate to be charged to
15 Marketers. As shown in Attachment AEL-5, the proposed FT-2 Marketer
16 Demand rate is \$8.7038 per Dth and will be applied to the Marketers' storage and
17 peaking MDQ.

18

19 **III. Residential Non-Heating Customers**

20 Q. **In the Company's last GCR proceeding in Docket No. 4436, the consultant**
21 **for the Division of Public Utilities and Carriers (the Division) inquired as to**

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1 **the reason for the increase in use for the Residential Non-Heating rate class**
2 **during the prior winter. Did the Company investigate the reason for this**
3 **increase?**

4 A. Yes it has. The Company performed extensive data analysis on the historical
5 usage for the Residential Non-Heating rate class to confirm the trending of
6 increased use per customer. As a result of observing this trend, the Company
7 hypothesized that non-heating customers could have converted to gas heat but not
8 had their rate class assignment changed in the system. Therefore, the Company
9 compared a list of non-heating customers with a list of customers who have
10 participated in the Company's Marketing and Energy Efficiency programs over
11 the past few years, indicating that they had converted to gas heating through the
12 purchase of a high efficiency gas boiler or receipt of an incentive payment from
13 the Energy Efficiency program in support of the installation of a high efficiency
14 gas boiler. As a result of this work, the Company identified that slightly more
15 than 2,000 non-heating customers had converted their heating systems to natural
16 gas, but had yet to be transferred to the heating rate. The Company intends to
17 transfer these customers to the heating rate before the upcoming winter heating
18 season. The Company also reviewed the annual consumption of the remaining
19 non-heating customers (excluding the 2,000 customers identified above) and
20 further identified over 1,000 customers who are using more than 1,000 therms per

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1 year and have annual load factors¹ greater than 60%. The Company believes that
2 customers with this load profile are most likely using gas for heating purposes and
3 likely converted their heating systems to natural gas over the years but never
4 contacted the Company about converting. The Company is in the process of
5 notifying these customers that they will be transferred to the heating rate during
6 the next few months.

7

8 **Q. Did the Company make any adjustments to the 2014-2015 sales forecast to**
9 **reflect this change?**

10 A. No, the Company did not make any manual adjustments to the Company's 2014-
11 2015 sales forecast. The Company determined that the assignment of 3,000
12 customers from the non-heating class to the heating class will have minimal
13 impact on the proposed high load and low load GCR factors. In addition, any
14 variance between forecast and actual sales will be captured in the GCR
15 reconciliation.

16

17

18

¹ Load factor equals winter usage (November through April) divided by total annual usage.

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1 **IV. BILL IMPACTS**

2 **Q. What is the combined bill impact of the proposed DAC and GCR factors on**
3 **customer bills as compared to bills over the past year?**

4 A. An average residential heating customer using 846 therms per year will
5 experience a total annual bill decrease related to the proposed GCR and DAC
6 factors of approximately \$108.79, or 8.3% over last year's bills. This decrease is
7 comprised of a \$48.02 decrease in GCR charges, a \$57.51 decrease in the DAC
8 charges, for which the Company submitted a supplemental filing on August 29,
9 2014 in Docket No. 4514, and a decrease in the Gross Earnings Tax of \$3.26. A
10 summary of annual bill impacts for customers with various levels of usage is
11 provided in Attachment AEL-4.

12

13 **Q. Does this conclude your testimony?**

14 A. Yes.

Attachments of
Ann E. Leary

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Attachments of Ann E. Leary

Attachment AEL-1 Gas Cost Recovery Factors

Attachment AEL-2 Annual GCR Reconciliation Filing

Attachment AEL-3 Projected Gas Cost Balances

Attachment AEL-4 Bill Impact Analysis

Attachment AEL-5 FT-2 Demand Rate

Attachment AEL-6 FT-2 Capacity Allocator Percentages

Attachment AEL-7 Marketer Reconciliation

Attachment AEL-1
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**Attachment AEL-1
Gas Cost Recovery Factors**

**National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Factors Effective November 1, 2014**

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Line <u>No.</u>	<u>Description</u>	Source			FT-2 <u>Mkter</u> ³
		<u>Reference</u> (b)	<u>Line #</u> (c)	<u>High Load</u> ¹ (d)	
(1)	Fixed Cost Factor	AEL-1 pg 2	Line (17)	\$0.8898	\$1.0659
(2)	Variable Cost Factor	AEL-1 pg 3	Line (13)	\$5.5622	\$5.5622
(3)	Total Gas Cost Recovery Charge	(1) + (2)		\$6.4520	\$6.6281
(4)	Uncollectible %	Docket 4323		3.18%	3.18%
(5)	Total GCR Charge adjusted for Uncollectibles	(3) / [1 - (4)]		\$6.6639	\$6.8457
(6)	GCR Charge on a per therm basis	(5) / 10		\$0.6663	\$0.6845
(7)	Current rate effective 04/01/14*				
(8)	Increase (Decrease)	(6) - (7)		\$0.8963	\$0.9208
(9)	Percent Increase (Decrease)	(8) / (7)		(\$0.2300) -25.7%	(\$0.2363) -25.7%

* GCR rates approved with the interim GCR filing per Dkt 4436 filed on February 14, 2014

¹ Includes: Residential Non Heating, Large High Load and Extra Large High Load

² Includes: Residential Heating, Small C&I, Medium C&I, Large Low Load, Extra Large Low Load

³ See AEL-5 for calculation of FT-2 rate

**National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Fixed Cost Calculation (\$ per Dth)**

Line No.	Description	Reference (b)	Source (c)	Line #		Amount (d)	High Load Factor Total (e)	Low Load Factor Total (f)
				Line (60)	Line (60)			
(1)	Fixed Costs (net of Cap Rel to marketers)	AEL-1 pg 4				\$44,355,723		
Less:								
(2)	NGPMP Customer Benefit	EDA-1				(\$6,900,000)		
(3)	Interruptible Costs					\$0		
(4)	FT-2 Storage Demand Costs	AEL-5 pg 3		Line (5)		(\$1,571,148)		
(5)	LNG Demand to DAC*					(\$1,488,790)		
(6)	Refunds					\$0		
(7)	Total Credits		sum[(2):(6)]			(\$9,959,938)		
Plus:								
(8)	Supply Related LNG O&M Costs	Dkt 4323	Compliance Attachment 6			\$575,581		
(9)	Working Capital Requirement		Schedule MDL-3-GAS					
(10)	Deferred Fixed Cost Under/(Over)-recovered	AEL-1 pg 8	Line (16)			\$254,137		
(11)	Reconciliation Amount from Fixed costs- Marketers	AEL-1 pg 6	Line (17)			(\$7,060,474)		
(12)	Total Additions	AEL-7 pg 2	Line (50)			(\$80,117)		
		sum[(8):(11)]				(\$6,310,873)		
(13)	Total Fixed Costs	(1) + (7) + (12)				\$28,084,912		
(14)	Design Winter Sales Percentage	AEL-1 pg 12	Lines (10) & (11)			3.48%	96.52%	
(15)	Allocated Supply Fixed Costs	(13) x (14)						
(16)	Sales (Dt) Nov 2014 - Oct 2015	AEL-1 pg 11	Line (9)			26,528,190	1,099,216	25,428,974
(17)	Fixed Factor	(15) / (16)						

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* System Balancing Factor (Dkt 4339)

Line (16)

Col (e): AEL-1, page 11, Line 9, Sum of Line (1), (6), (8)
Col (f): AEL-1, page 11, Line 9, Sum of Line (2)-(5) and (7)

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Variable Cost Calculation (\$ per Dth)

Line No.	Description (a)	Source		Amount (d)
		Reference (b)	Line # (c)	
(1)	Variable Costs, excluding Refunds	AEL-1 pg 5	Line (91) - Line (85)	\$108,985,186
	Less:			
(2)	Non-Firm Sales	AEL-1 pg 5	Line (85)	\$0
(3)	Refunds	sum [(2):(3)]		\$0
(4)	Total Credits			
	Plus:			
(5)	Working Capital	AEL-1 pg 8	Line (32)	\$646,120
(6)	Deferred Variable Cost Under/(Over)-recovered	AEL-1 pg 6	Line (34)	\$36,091,594
(7)	Supply Related LNG O&M	Docket 4323	Compliance Attachment 6 Schedule MDL-3-GAS	\$572,694
(8)	Inventory Financing - LNG	AEL-1 pg 10	Line (22)	\$254,509
(9)	Inventory Financing - Storage	AEL-1 pg 10	Line (12)	\$1,005,487
(10)	Total Additions	sum [(5):(9)]		\$38,570,404
(11)	Total Variable Supply Costs	(1) + (4) + (10)		\$147,555,590
(12)	Sales (Dt) Nov 2014 - Oct 2015	AEL-1 pg 11	Line (9)	26,528,190
(13)	Variable Cost Factor	(11) / (12)		\$5.5622

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National Grid - RI Gas
 Gas Cost Recovery (GCR) Filing
 Gas Cost Estimate

Line No.	Description	Reference	Nov-14 (c)	Dec-14 (d)	Jan-15 (e)	Feb-15 (f)	Mar-15 (g)	Apr-15 (h)	May-15 (i)	Jun-15 (j)	Jul-15 (k)	Aug-15 (l)	Sep-15 (m)	Oct-15 (n)	Nov-Oct (o)
VARIABLE SUPPLY COSTS (Includes Injections)															
(61) Tennessee Zone 0	EDA-A-2	\$697,485	\$1,074,233	\$1,592,597	\$1,326,784	\$894,278	\$1,158,181	\$37,846	\$0	\$0	\$791,662	\$776,674	\$826,291	\$996,274	\$0
(62) Tennessee Zone 4	EDA-A-2	\$1,036,246	\$1,138,353	\$1,014,685	\$1,127,413	\$995,054	\$969,511	\$942,593	\$917,364	\$922,834	\$789,664	\$841,877	\$10,172,304	\$11,659,592	\$3,37,024
(63) Tennessee Connection	EDA-A-2	\$963,999	\$1,014,685	\$1,518,260	\$2,350,300	\$450,298	\$13,735	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(64) Tennessee Dracut	EDA-A-2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(65) TEICO STX	EDA-A-2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(66) TEICO EEA	EDA-A-2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(67) TEICO WLA	EDA-A-2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(68) TEICO EXX	EDA-A-2	\$73,489	\$179,252	\$177,027	\$163,961	\$180,039	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(69) TEICO NF	EDA-A-2	\$606,428	\$1,789,279	\$1,461,703	\$3,936,271	\$2,783,287	\$801,747	\$0	\$0	\$0	\$65,691	\$595,206	\$13,887,210	\$73,766	\$0
(70) M3 Delivered	EDA-A-2	\$406,627	\$3,333,620	\$3,679,496	\$3,220,907	\$2,890,493	\$221,695	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,52,838
(71) Maumee	EDA-A-2	\$134,754	\$1,225,865	\$1,240,089	\$1,079,958	\$1,019,988	\$74,780	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,775,435
(72) Broadrun Col	EDA-A-2	\$259,879	\$450,960	\$1,224,090	\$955,166	\$235,322	\$368,327	\$122,243	\$124,954	\$37,092	\$124,232	\$38,621	\$3,907,558	\$0	\$0
(73) Columbia Eagle and Downingtown	EDA-A-2	\$2,278,149	\$2,605,244	\$2,708,177	\$2,432,764	\$2,576,237	\$823,042	\$746,720	\$2,068,776	\$1,429,682	\$1,347,788	\$1,323,606	\$1,928,186	\$22,263,370	\$0
(74) TEICO M2	EDA-A-2	\$13,291	\$42,737	\$41,990	\$55,119	\$42,925	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,76,061	\$0
(75) Dominion to TEICO FTS	EDA-A-2	[REDACTED]	[REDACTED]	\$0											
(76) Transco Zone 3	EDA-A-2	[REDACTED]	[REDACTED]	\$0											
(77) ANE to Tennessee	EDA-A-2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(78) Niagara to Tennessee	EDA-A-2	\$247,239	\$312,052	\$308,565	\$276,864	\$304,363	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(79) TEICO to B & W	EDA-A-2	\$603	\$1,006,554	\$1,677,976	\$2,251,309	\$239,154	\$864	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(80) DistriGas FCS	EDA-A-2	\$456,560	\$1,258,610	\$1,084,720	\$950,790	\$949,635	\$4,661,606	\$257,722	\$117,879	\$104,720	\$80,191	\$88,890	\$114,437	\$5,875,535	\$0
(81) Hubline	EDA-A-2	\$0	\$0	\$0	\$0	\$0	\$0	\$1,511,251	\$1,386,502	\$1,475,046	\$1,285,078	\$1,354,582	\$1,416,692	\$1,303,540	\$0
(82) Total Pipeline Commodity Charges	sum[(60):(83)]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(83) Hedging EDA-2	EDA-A-2	\$730,579	\$952,121	\$2,241,654	\$2,994,928	\$2,715,510	\$39,125	\$2,182	\$0	\$0	\$0	\$0	\$0	\$0	\$12,676,100
(84) Costs of Injections	EDA-A-2	\$30,844	\$170,228	\$182,144	\$168,262	\$153,958	\$1,885	\$26	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(85) Refunds	EDA-A-2	[REDACTED]	[REDACTED]	\$0											
(86) TOTAL VARIABLE SUPPLY COSTS	sum[(84):(87)]	[REDACTED]	[REDACTED]	\$0											
(87) Underground Storage	EDA-A-2	[REDACTED]	[REDACTED]	\$0											
(88) LNG Withdrawal and Trucking	EDA-A-2	[REDACTED]	[REDACTED]	\$0											
(89) Storage Delivery Costs	EDA-A-2	[REDACTED]	[REDACTED]	\$0											
(90) TOTAL VARIABLE STORAGE COSTS	sum[(89):(88)]	[REDACTED]	[REDACTED]	\$0											
(91) TOTAL VARIABLE COSTS	(88) + (-:2)	[REDACTED]	[REDACTED]	\$0											
(92) TOTAL SUPPLY COSTS	(59) + (93)	[REDACTED]	[REDACTED]	\$153,340,909											
Storage Costs for FT-2 Calculation															
(93) Storage Fixed Costs - Facilities	(34)	\$399,803	\$399,803	\$399,803	\$399,803	\$399,803	\$1,147,534	\$1,147,534	\$399,803	\$399,803	\$1,147,534	\$1,147,534	\$399,803	\$4,797,630	\$0
(94) Storage Fixed Costs - Deliveries	(57)	\$43,155	\$673,155	\$673,155	\$540,155	\$540,155	\$1,547,337	\$1,547,337	\$1,547,337	\$1,547,337	\$1,547,337	\$1,547,337	\$1,547,337	\$11,027,513	\$0
(95) Total Storage Costs	sum[(92):(93)]	\$834,957	\$1,072,957	\$1,072,957	\$1,072,957	\$1,072,957	\$1,547,337	\$1,547,337	\$1,547,337	\$1,547,337	\$1,547,337	\$1,547,337	\$1,547,337	\$15,825,143	\$0

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
GCR Deferred Balances

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	No.	Description	Nov-13 actual	Dec-13 actual	Jan-14 actual	Feb-14 actual	Mar-14 actual	Apr-14 actual	May-14 actual	Jun-14 actual	Jul-14 actual	Aug-14 forecast	Sep-14 forecast	Oct-14 forecast	Nov-Oct (n)
(1)	(a)	f ays n #athD i M	30	31	28	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	365
(b)															
(2)	L Fixed Cost Deferred														
(3)	Beginning Balance														
(4)	Adjustment- Tennessee Refund Reallocation														
(5)	Supply Fixed Costs (net of cap rel)	\$3,143,675	(\$4,859,848)	(\$5,978,215)	(\$10,375,006)	(\$13,591,019)	(\$16,517,674)	(\$17,077,221)	(\$16,061,355)	(\$15,854,316)	(\$13,270,644)	(\$10,384,049)	(\$9,734,032)	(\$5,826,212)	
(6)	LNG Demand to DAC	\$3,380,096	\$3,381,417	\$3,490,908	\$3,422,689	\$3,639,171	\$3,672,635	\$3,699,902	\$3,634,903	\$3,884,551	\$3,883,894	\$3,884,551	\$3,884,551	\$43,118,393	
(7)	Supply Related LNG O & M	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$1,488,790	
(8)	NGPMP Credits	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	\$57,581	
(9)	Working Capital	\$17,902	\$19,303	\$19,311	\$19,960	\$20,839	\$20,388	\$21,199	\$20,814	\$22,294	\$22,294	\$22,294	\$22,294	\$246,802	
(10)	Total Supply Fixed Costs	\$3,002,143	\$3,239,294	\$3,351,434	\$3,155,290	\$3,500,577	\$3,534,239	\$1,412,928	\$3,496,283	\$3,747,411	\$1,598,011	\$3,747,411	\$3,747,411	\$35,551,986	
(11)	Supply Fixed - Revenue	\$2,022,091	\$4,352,582	\$6,154,409	\$6,553,963	\$6,065,970	\$4,042,875	\$2,500,791	\$1,189,503	\$897,159	\$848,266	\$97,665	\$1,064,943	\$36,632,217	
(12)	P relim. Ending Balance	(\$4,846,161)	(\$5,972,465)	(\$10,366,330)	(\$13,579,534)	(\$16,501,700)	(\$17,059,972)	(\$16,043,774)	(\$13,255,192)	(\$15,837,930)	(\$10,321,499)	(\$9,723,702)	(\$7,051,563)	(\$6,906,443)	
(13)	Months Average Balance	(\$5,336,186)	(\$5,416,156)	(\$8,172,72)	(\$11,977,272)	(\$15,046,360)	(\$16,788,823)	(\$16,560,497)	(\$15,949,642)	(\$14,554,754)	(\$10,053,876)	(\$8,392,798)			
(14)	Interest Rate (BOA Prime minus 200 bps)	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%		
(15)	Interest Applied	(\$5,482)	(\$5,750)	(\$8,676)	(\$11,485)	(\$11,485)	(\$11,485)	(\$17,249)	(\$17,581)	(\$16,387)	(\$15,452)	(\$12,550)	(\$8,910)	(\$145,825)	
(16)	Marketer Reconciliation	(\$8,205)	(\$5,978,215)	(\$10,375,006)	(\$13,591,019)	(\$16,517,674)	(\$17,077,221)	(\$16,061,355)	(\$15,854,316)	(\$13,270,644)	(\$10,384,049)	(\$9,734,032)	(\$7,060,474)	(\$8,205)	
(17)	Fixed Ending Balance	(\$4,859,848)													
(18)	II Variable Cost Deferred														
(19)	Beginning Balance	\$19,736,322	\$25,311,994	\$34,062,087	\$54,638,378	\$63,013,612	\$69,979,022	\$57,728,989	\$48,956,026	\$42,830,949	\$41,630,143	\$39,793,841	\$37,296,328	\$19,736,322	
(20)	Adjustment- Tennessee Refund Reallocation														
(21)	Variable Supply Costs	\$13,317,378	\$26,368,013	\$46,645,065	\$35,110,868	\$31,519,121	\$9,056,537	\$3,766,783	\$1,890,149	\$2,768,699	\$2,497,970	\$2,404,818	\$4,476,250	\$179,821,651	
(22)	Supply Related LNG to DAC	(\$76,679)	(\$85,575)	(\$722,185)	(\$200,181)	(\$72,042)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$1,156,661)	
(23)	Supply Related LNG O & M	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$57,694	
(24)	Inventory Financing - LNG	\$36,806	\$35,144	\$15,216	\$10,979	\$7,591	\$24,413	\$40,118	\$39,550	\$38,253	\$30,654	\$36,382	\$40,819	\$355,925	
(25)	Inventory Financing - UG	\$147,313	\$131,616	\$98,279	\$64,847	\$46,005	\$64,273	\$81,749	\$95,913	\$111,016	\$142,652	\$145,942	\$150,960	\$1,280,563	
(26)	Working Capital	\$78,498	\$26,652,738	\$46,356,354	\$35,241,206	\$31,734,834	\$186,434	\$33,692	\$22,331	\$11,206	\$16,414	\$14,809	\$12,537	\$1,059,217	
(27)	Total Supply Variable Costs	\$13,551,040	\$17,934,497	\$25,892,122	\$26,922,354	\$25,293,086	\$21,562,241	\$12,788,269	\$3,958,706	\$2,084,542	\$2,982,107	\$2,733,810	\$2,649,124	\$4,742,291	\$181,933,389
(28)	Supply Variable - Revenue	\$7,998,497	\$34,030,587	\$54,591,319	\$62,957,230	\$69,455,360	\$57,663,419	\$48,899,425	\$42,783,823	\$41,585,333	\$39,750,642	\$37,227,723	\$46,131,311	\$5,186,218	\$166,595,672
(29)	P relim. Ending Balance	\$22,528,865	\$29,671,291	\$44,326,703	\$58,797,804	\$66,234,486	\$63,821,221	\$53,314,207	\$45,869,924	\$42,208,141	\$40,690,393	\$38,525,294	\$36,674,493		
(30)	Months Average Balance	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%		
(31)	Interest Rate (BOA Prime minus 200 bps)	\$23,129	\$31,500	\$47,059	\$56,381	\$70,317	\$65,570	\$56,601	\$47,127	\$44,810	\$43,199	\$39,581	\$38,935	\$564,210	
(32)	Interest Applied	\$0	\$34,062,087	\$54,638,378	\$63,013,612	\$69,979,022	\$57,728,989	\$48,956,026	\$42,830,949	\$41,630,143	\$39,793,841	\$37,296,328	\$36,091,594	\$453,345	
(33)	Gas Procurement Incentive/(penalty)	\$25,311,994													
(34)	Variable Ending Balance														
(35)	GCR Deferred Summary														
(36)	Beginning Balance	\$13,910,110	\$20,452,146	\$28,083,873	\$44,263,373	\$49,422,593	\$53,461,348	\$40,651,768	\$32,894,671	\$26,976,633	\$28,359,499	\$29,409,792	\$27,562,296	\$13,910,110	
(37)	Gas Costs	\$16,347,793	\$29,634,158	\$49,275,921	\$38,373,219	\$34,841,392	\$12,667,332	\$7,411,042	\$5,561,675	\$6,375,226	\$6,354,145	\$6,260,336	\$8,332,425	\$21,434,662	
(38)	Inventory Finance	\$184,118	\$166,760	\$113,495	\$75,826	\$53,506	\$88,685	\$121,867	\$135,463	\$149,269	\$173,306	\$182,324	\$191,779	\$1,636,489	
(39)	Working Capital	\$96,399	\$175,119	\$291,565	\$226,929	\$205,990	\$74,531	\$43,369	\$37,103	\$37,228	\$36,547	\$48,832		\$1,306,019	
(40)	NGPMP Credits	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$83,333)	(\$8,900,000)	
(41)	Total Costs	\$16,544,977	\$29,892,703	\$48,122,648	\$38,592,640	\$34,890,123	\$12,747,215	\$7,492,944	\$3,497,470	\$6,478,390	\$6,481,221	\$4,247,135	\$8,489,702	\$2,17,477,170	
(42)	Revenue	\$10,020,588	\$22,286,727	\$31,198,531	\$33,478,316	\$31,359,056	\$25,605,116	\$15,289,061	\$9,446,249	\$5,124,882	\$6,123,883	\$7,050,903	\$2,03,227,889		
(43)	P relim. Ending Balance	\$20,454,499	\$28,058,122	\$44,224,989	\$49,377,696	\$52,929,660	\$40,603,447	\$32,855,652	\$26,945,893	\$28,330,141	\$29,379,143	\$27,533,045	\$29,001,095	\$28,159,391	
(44)	Months Average Balance	\$17,172,305	\$24,255,134	\$36,154,431	\$46,820,534	\$51,188,126	\$47,032,398	\$36,753,710	\$29,920,282	\$27,653,387	\$28,869,321	\$28,471,419	\$28,281,696		
(45)	Interest Rate (BOA Prime minus 200 bps)	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%		
(46)	Interest Applied	\$17,647	\$25,750	\$38,383	\$44,896	\$48,344	\$39,019	\$30,740	\$29,358	\$30,049	\$29,251	\$30,025	\$418,384		
(47)	Gas Purchase Plan Incentives/(Penalties)	\$0	\$0	\$0	\$0	\$453,345	\$0	\$0	\$0	\$0	\$0	\$0	\$453,345		
(48)	Ending Bal. W/ Interest	\$20,452,146	\$28,083,873	\$44,263,373	\$49,422,593	\$53,461,348	\$40,651,768	\$32,894,671	\$26,976,633	\$28,359,499	\$29,409,792	\$27,562,296	\$29,031,120		

REDACTED

National Grid - RI Gas
 Gas Cost Recovery (GCR) Filing
GCR - Gas Cost Revenue

Line No.	Description	Reference	Nov-14 test (b)	Dec-14 test (d)	Jan-15 test (e)	Feb-15 test (f)	Mar-15 test (g)	Apr-15 test (h)	May-15 test (i)	Jun-15 test (j)	Jul-15 test (k)	Aug-15 test (l)	Sep-15 test (m)	Oct-15 test (n)	Total Nov-Oct (o)
(1) I. Fixed Cost Revenue :-															
(2)	(a) Low Load dth Fixed Cost Factor	AEI-1 pg 11, sum[Line (2)-(5), (7)] AEI-1 pg 1, (e) (2) * (3)	1,369,255 \$1,0659 \$1,459,489	2,973,054 \$1,0659 \$3,168,978	4,353,681 \$1,0659 \$4,640,588	4,492,436 \$1,0659 \$4,788,488	4,033,250 \$1,0659 \$3,064,380	2,874,923 \$1,0659 \$1,884,656	1,768,136 \$1,0659 \$1,0659	910,498 \$1,0659 \$970,499	637,310 \$1,0659 \$679,309	627,644 \$1,0659 \$669,006	643,170 \$1,0659 \$685,555	745,617 \$1,0659 \$794,754	25,428,974 \$27,104,743
(3)	Low Load Revenue														
(4)	(b) High Load dth Fixed Cost Factor	AEI-1 pg 11, sum[Line (1), (6), (8)] AEI-1 pg 1, (d) (5) * (6)	68,747 \$0,8898 \$61,171	103,917 \$0,8898 \$92,465	149,437 \$0,8898 \$132,969	173,578 \$0,8898 \$125,372	140,900 \$0,8898 \$114,132	128,267 \$0,8898 \$68,610	77,107 \$0,8898 \$53,603	60,242 \$0,8898 \$44,737	50,278 \$0,8898 \$43,768	49,189 \$0,8898 \$44,890	50,449 \$0,8898 \$41,915	47,106 \$0,8898 \$978,082	1,099,216 \$1,099,216
(5)	High Load Revenue														
(6)	(8) sub-total Dth	(2) + (5)	1,438,002	3,076,971	4,503,117	4,666,014	4,174,149	3,003,189	1,845,243	970,739	687,588	676,833	693,620	792,724	26,528,190
(9)	FT-2 Storage Revenue from marketers	[AEI-5 pg 3, Line (5)] / 12	\$130,929	\$130,929	\$130,929	\$130,929	\$130,929	\$130,929	\$130,929	\$130,929	\$130,929	\$130,929	\$130,929	\$130,929	\$1,571,148
(10)	TOTAL Fixed Revenue	(4) + (7) + (9)	\$1,651,589	\$3,392,372	\$4,904,486	\$5,073,867	\$4,555,342	\$3,309,441	\$2,084,195	\$1,155,031	\$854,975	\$843,703	\$861,374	\$867,598	\$29,653,973
(11) II. Variable Cost Revenue :-															
(12)	(a) Firm Sales dth Variable Cost Factor	AEI-1 pg 1, Line (2) (12) * (13)	1,438,002 \$5,5622 \$7,998,456	3,076,971 \$5,5622 \$17,114,726	4,503,117 \$5,5622 \$25,047,240	4,666,014 \$5,5622 \$25,953,304	4,174,149 \$5,5622 \$23,217,452	3,003,189 \$5,5622 \$16,704,339	1,845,243 \$5,5622 \$10,263,612	970,739 \$5,5622 \$3,824,503	687,588 \$5,5622 \$3,764,680	676,833 \$5,5622 \$3,764,680	693,620 \$5,5622 \$3,764,680	792,724 \$5,5622 \$4,409,287	26,528,190 \$147,555,096
(13)	Variable Revenue														
(14)	TOTAL Variable Revenue	(14)	\$7,998,456	\$17,114,726	\$25,047,240	\$25,953,304	\$23,217,452	\$16,704,339	\$10,263,612	\$5,399,446	\$3,824,503	\$3,764,680	\$3,858,051	\$4,409,287	\$147,555,096
(15)	Total Gas Cost Revenue	(10) + (15)	\$9,650,045	\$20,507,098	\$29,951,726	\$31,027,171	\$27,772,794	\$20,013,780	\$12,347,807	\$6,554,477	\$4,679,478	\$4,608,383	\$4,719,425	\$5,376,885	\$177,209,069

REDACTED

National Grid - RI Gas
 Gas Cost Recovery (GCR) Filing
Working Capital Estimate

Line No.	Description (a)	Source (b)	Nov-14 (c)	Dec-14 (d)	Jan-15 (e)	Feb-15 (f)	Mar-15 (g)	Apr-15 (h)	May-15 (i)	Jun-15 (j)	Jul-15 (k)	Aug-15 (l)	Sep-15 (m)	Oct-15 (n)	Total (o)
(1) Fixed Costs															
(2) Capacity Release Revenue		\$3,211,248	\$3,449,789	\$3,448,450	\$3,446,826	\$3,315,450	\$3,925,971	\$3,926,512	\$3,926,512	\$3,925,971	\$3,926,512	\$3,926,512	\$3,925,971	\$3,926,512	\$44,355,723
(3) Less LNG Demand to DAC		Dkt 4431	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$1,488,790
(4) Less: reddit C		Dkt 4323	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(5) Plus: Supply Related LNG OEM Costs		sum[(1)-(5)]	\$3,087,182	\$3,325,723	\$3,324,384	\$3,322,760	\$3,191,384	\$3,801,905	\$3,802,446	\$3,802,446	\$3,801,905	\$3,802,446	\$3,801,905	\$3,802,446	\$42,866,933
(6) Allowable Working Capital Costs		Dkt 4323	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51
(7) Number of Days Lag															
(8) Working Capital Requirement		[16] * (7) / 365	\$181,932	\$195,990	\$195,911	\$195,815	\$188,073	\$224,052	\$224,084	\$224,052	\$224,084	\$224,052	\$224,084	\$224,052	\$224,084
(9) Cost of Capital		Dkt 4323	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%
(10) Return on Working Capital Requirement		(8) * (9)	\$13,718	\$14,778	\$14,772	\$14,764	\$14,81	\$16,894	\$16,894	\$16,894	\$16,894	\$16,894	\$16,894	\$16,894	\$16,896
(11) Weighted Cost of Debt		Dkt 4323	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%
(12) Interest Expense		(8) * (11)	\$5,203	\$6,605	\$5,603	\$5,600	\$5,579	\$6,408	\$6,408	\$6,408	\$6,408	\$6,408	\$6,408	\$6,408	\$6,409
(13) Taxable Income		(10) - (12)	\$8,514	\$9,172	\$9,169	\$9,164	\$8,802	\$10,486	\$10,486	\$10,486	\$10,486	\$10,486	\$10,486	\$10,486	\$10,487
(14) 1 - Combined Tax Rate		Dkt 4323	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500
(15) Return and Tax Requirement		(13) / (14)	\$13,099	\$14,111	\$14,106	\$14,099	\$13,541	\$16,132	\$16,132	\$16,132	\$16,132	\$16,132	\$16,132	\$16,132	\$16,134
(16) Fixed Working Capital Requirement		(12) + (15)	\$18,302	\$19,717	\$19,709	\$19,699	\$18,920	\$22,540	\$22,540	\$22,540	\$22,540	\$22,540	\$22,540	\$22,540	\$22,543
(17) Variable Costs															
(18) Less: on-firm abs. S		AEL-3, Line (19)	\$7,883,231	\$18,130,078	\$24,626,234	\$21,779,140	\$14,542,444	\$6,534,003	\$3,638,315	\$2,665,126	\$2,084,637	\$1,980,297	\$1,826,892	\$3,294,789	\$108,985,186
(19) Less: Supply Refunds		Dkt 4431	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(20) Less: Balancing Related LNG Commodity to DAC		Dkt 4323	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(21) Plus: Supply Related LNG OEM Costs		sum[(17)-(21)]	\$7,883,231	\$18,130,078	\$24,626,234	\$21,779,140	\$14,542,444	\$6,534,003	\$3,638,315	\$2,665,126	\$2,084,637	\$1,980,297	\$1,826,892	\$3,294,789	\$108,985,186
(22) Allowable Working Capital Costs		Dkt 4323	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51
(23) Number of Days Lag															
(24) Working Capital Requirement		[22] * (23) / 365	\$464,571	\$1,068,433	\$1,451,261	\$1,283,478	\$857,008	\$385,059	\$214,411	\$157,060	\$122,851	\$116,702	\$107,661	\$194,167	
(25) Cost of Capital		Dkt 4323	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	
(26) Return on Working Capital Requirement		(24) * (25)	\$35,029	\$80,360	\$109,425	\$96,774	\$64,618	\$29,033	\$16,167	\$11,842	\$9,263	\$8,118	\$8,118	\$8,118	\$14,640
(27) Weighted Cost of Debt		Dkt 4323	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	
(28) Interest Expense		(24) * (27)	\$13,287	\$30,557	\$41,506	\$36,707	\$24,510	\$11,013	\$6,132	\$4,492	\$3,514	\$3,338	\$3,079	\$3,079	\$5,553
(29) Taxable Income		(26) - (28)	\$21,742	\$50,003	\$67,919	\$60,067	\$40,108	\$18,021	\$10,034	\$7,750	\$5,749	\$5,462	\$5,039	\$9,087	
(30) 1 - Combined Tax Rate		Dkt 4323	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	
(31) Return and Tax Requirement		(29) / (30)	\$33,449	\$76,927	\$104,491	\$92,410	\$61,705	\$27,724	\$15,438	\$11,508	\$8,845	\$8,403	\$7,752	\$13,980	
(32) Variable Working Capital Requirement		(28) + (31)	\$46,736	\$107,484	\$145,997	\$129,118	\$86,215	\$38,737	\$21,570	\$15,800	\$12,359	\$11,740	\$10,831	\$19,533	\$646,120

REDACTED

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing

Storage Fixed Cost Working Capital Calculation for FT-2 Demand Rate (see AEL-5 pg 2)

REDACTED

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Inventory Finance Estimate

REDACTED

National Grid - RI Gas
 Gas Cost Recovery (GCR) Filing
 Forecasted Throughput (Dth)

Line No.	Rate Class (a)	Nov-14 (b)	Dec-14 (c)	Jan-15 (d)	Feb-15 (e)	Mar-15 (f)	Apr-15 (g)	May-15 (h)	Jun-15 (i)	Jul-15 (j)	Aug-15 (k)	Sep-15 (l)	Oct-15 (m)	Nov-15 (n)	
SALES															
(1) Residential Non-Heating	45,060	82,938	115,737	119,268	108,822	83,093	55,290	37,237	28,824	27,104	27,648	30,965	761,987		
(2) Residential Heating	1,044,744	2,226,624	3,239,393	3,325,991	2,989,103	2,151,864	1,342,728	702,519	482,963	461,730	466,391	539,594	18,973,642		
(3) Small C&I	111,656	291,880	477,466	499,885	438,170	284,646	168,646	63,417	50,994	55,947	44,572	61,132	2,548,411		
(4) Medium C&I	168,278	348,704	483,327	511,636	462,400	333,663	189,887	116,572	85,200	88,992	87,441	100,796	2,976,895		
(5) Large LLF	34,040	79,793	117,993	119,645	112,741	81,173	52,155	15,221	10,637	19,739	14,588	20,838	669,743		
(6) Large HLF	11,489	10,927	15,622	24,096	12,636	5,673	4,083	4,056	3,333	3,964	4,128	5,045	105,071		
(7) Extra Large LLF	10,538	26,053	35,502	35,280	30,836	23,576	14,740	12,769	7,516	10,037	30,179	23,257	260,283		
(8) Extra Large HLF	12,198	10,051	18,078	30,213	19,422	39,501	17,735	18,949	18,121	18,673	11,097	232,158			
(9) Total Sales	1,438,002	3,076,971	4,503,117	4,666,014	4,174,149	3,003,189	1,845,243	970,739	687,588	676,833	693,620	792,724	26,528,190		
TRANSPORTATION															
(10) FT-Small	267	658	1,086	1,100	978	711	533	313	250	257	286	428	6,866		
(11) FT-Medium	140,980	262,162	368,384	375,480	329,017	246,819	161,930	82,418	82,025	82,722	83,329	106,527	2,321,794		
(12) FT-Large LLF	146,243	288,013	370,895	421,795	310,375	277,414	149,244	44,834	29,887	53,920	59,894	109,884	2,262,397		
(13) FT-Large HLF	120,908	119,808	117,689	125,248	139,258	116,728	33,463	33,093	37,198	30,281	43,814	40,884	1,078,372		
(14) FT-Extra Large LLF	45,410	94,412	96,830	104,558	68,702	76,321	98,515	30,948	29,824	28,556	52,229	72,018	798,324		
(15) FT-Extra Large HLF	388,887	479,280	532,383	572,604	426,682	474,397	343,775	316,614	405,341	444,294	362,616	367,698	5,114,573		
(16) Total FT Transportation	842,695	1,244,332	1,487,267	1,720,784	1,275,012	1,192,390	787,461	508,221	584,525	640,032	602,169	697,439	11,582,327		
Total THROUGHPUT															
(17) Residential Non-Heating	45,060	82,938	115,737	119,268	108,822	83,093	55,290	37,237	28,824	27,104	27,648	30,965	761,987		
(18) Residential Heating	1,044,744	2,226,624	3,239,393	3,325,991	2,989,103	2,151,864	1,342,728	702,519	482,963	461,730	466,391	539,594	18,973,642		
(19) Small C&I	111,924	292,538	478,552	500,985	439,148	285,357	169,179	63,729	51,244	56,204	44,858	61,150	2,535,277		
(20) Medium C&I	309,258	610,866	851,711	887,115	791,416	580,483	351,817	198,991	167,224	171,714	170,770	207,323	5,298,689		
(21) Large LLF	180,283	367,805	488,889	541,439	423,116	358,586	201,379	60,055	40,524	64,859	74,482	130,722	2,932,140		
(22) Large HLF	132,397	130,735	133,311	269,344	151,913	122,401	37,546	37,149	40,531	34,245	47,943	45,929	1,183,444		
(23) Extra Large LLF	55,948	120,466	132,332	139,838	99,538	99,898	113,255	43,717	37,340	38,593	82,408	95,275	1,058,607		
(24) Extra Large HLF	401,085	489,331	550,460	602,818	446,104	513,898	361,510	335,564	423,462	462,415	381,290	378,795	5,346,731		
(25) Total Throughput	2,280,698	4,321,303	5,990,384	6,386,798	5,449,161	4,195,580	2,632,704	1,478,960	1,272,113	1,316,865	1,295,789	1,490,163	38,110,517		

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Design Winter Period and Design Day Throughput (Dth)

REDACTED

The Narragansett Electric Company
d/b/a National Grid
Docket No. 4520
Attachment AEL-1
Redacted
Page 12 of 12

Line No.	Rate Class (a)	Nov-14 (b)	Dec-14 (c)	Jan-15 (d)	Feb-15 (e)	Mar-15 (f)	Total (g)	% (h)
<u>SALES (dth)</u>								
(1) Residential Non-Heating	82,450	108,645	120,286	104,840	98,469	514,690	2,61%	
(2) Residential Heating	2,193,617	3,003,064	3,368,645	2,923,156	2,683,484	14,171,966	71.89%	
(3) Small C&I	308,423	428,725	483,350	418,720	380,974	2,020,192	10.25%	
(4) Medium C&I	340,133	459,710	513,449	446,196	412,732	2,172,220	11.02%	
(5) Large LLF	78,569	109,552	123,635	107,067	97,242	516,066	2.62%	
(6) Large HLF	12,968	17,327	19,276	16,773	15,623	81,967	0.42%	
(7) Extra Large LLF	25,439	30,481	32,564	28,732	28,661	145,877	0.74%	
(8) Extra Large HLF	17,879	18,463	18,457	16,673	18,468	89,940	0.46%	
(9) Total Sales	3,059,479	4,175,967	4,679,662	4,062,157	3,735,652	19,712,917	100.00%	
(10) Low Load Factor	2,946,182	4,031,533	4,521,643	3,923,871	3,603,092	19,026,320	96.52%	
(11) High Load Factor	113,298	144,434	158,019	138,286	132,560	686,597	3.48%	
<u>2014/2015 Design Day Sendout</u>								
(12) Pipeline		179,070	Dktherm					
(13) Underground Storage		42,473	Dktherm					
(14) LNG		118,286	Dktherm					
(15) Total Projected 2014/2015 Design Day		339,829	Dktherm					

Attachment AEL-2
REDACTED

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
GAS COST RECOVERY FILING
WITNESS: ANN E. LEARY
SEPTEMBER 2, 2014**

**Attachment AEL-2
Annual GCR Reconciliation Filing**

Deferred Gas Cost Balances

Line No.	Description	Reference	Δ <i>Inv</i> Actual 30 (a)	Max Actual 31 (b)	Jun Actual 30 (c)	Jul Actual 31 (d)	Aug Actual 31 (e)	Sep Actual 30 (f)	Oct Actual 31 (g)	Nov Actual 31 (h)	Dec Actual 31 (i)	Jan Actual 31 (j)	Feb Actual 31 (k)	Mar Actual 31 (l)	Apr-Mar (m)	
1	# of Days in Month															
2	Fixed Cost Deferred															
3	Beginning Balance		(\$9,366,432)	(\$12,083,333)	(\$12,098,295)	(\$10,643,044)	(\$8,946,896)								(\$9,366,432)	
4	Supply Fixed Costs (net of cap rel)	Sch. 2, line 47	\$3,473,370	\$3,302,783	\$3,457,701	\$3,448,816	\$3,414,066	\$3,452,553	\$3,452,409	\$3,143,875	\$3,380,096	\$3,384,417	\$3,398,908	\$3,422,689	\$40,932,765	
5	LNG Demand to DAC	Dkt 4359	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	\$124,066	
6	Supply Related LNG O & M	Dkt 4323	\$47,965	\$47,265	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	
7	NGPMP Credits															
8	Working Capital	Sch. 4, line 15	\$19,858	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	
9	Total Supply Fixed Costs	Sch. 3, line 10	\$33,031,993	\$2,862,194	\$3,015,728	\$3,009,093	\$2,512,653	\$2,018,266	\$1,983,266	\$1,972,932	\$1,972,932	\$1,972,932	\$1,972,932	\$1,972,932	\$1,972,932	
10	Supply Fixed - Revenue	sum(3)+(4)	\$55,739,881	\$2,864,227	\$3,015,728	\$3,009,093	\$2,512,653	\$2,128,267	\$1,267,024	\$1,401,184	\$1,401,184	\$1,401,184	\$1,401,184	\$1,401,184	\$1,401,184	
11	Supply Fixed - Revenue	(3) + (10) - (11)	\$12,072,220	\$12,085,466	\$10,631,367	\$8,946,896	\$7,562,510	\$7,553,032	\$8,486,161	\$5,972,644	\$5,972,644	\$5,972,644	\$5,972,644	\$5,972,644	\$5,972,644	
12	Prelim. Ending Balance															
13	Month's Average Balance															
14	Interest Rate (BOA Prime minus 200 bps)	(13) * (14) / 365 * (1)	\$10,719,376	\$12,084,400	\$11,364,831	\$8,789,773	\$8,254,703	\$6,663,153	\$5,396,971	\$5,336,186	\$5,416,566	\$5,416,566	\$5,416,566	\$5,416,566	\$5,416,566	\$5,416,566
15	Interest Applied															
16	Market Reconciliation	Dkt 4356	\$1,013	\$12,329	\$1,676	\$10,393	\$8,764	\$6,846	\$5,482	\$5,750	\$5,750	\$5,750	\$5,750	\$5,750	\$5,750	
17	Fixed Ending Balance	(12) + (15) + (16)	\$12,083,333	\$12,098,295	\$10,643,044	\$8,946,896	\$7,571,274	\$5,826,212	\$4,859,848	\$5,5978,214	\$5,5978,214	\$5,5978,214	\$5,5978,214	\$5,5978,214	\$5,5978,214	\$5,5978,214
18	II. Variable Cost Deferred															
19	Beginning Balance		\$22,072,200	\$17,209,139	\$15,053,460	\$15,222,414	\$15,836,644	\$16,752,198	\$17,308,710	\$19,736,322	\$25,311,994	\$24,062,087	\$24,062,087	\$24,062,087	\$22,072,500	
20	Variable Supply Costs	Sch. 2, line 106	\$9,316,359	\$4,547,778	\$3,61,1984	\$3,595,778	\$3,275,488	\$3,372,384	\$3,586,658	\$13,317,378	\$26,368,013	\$46,645,065	\$53,110,688	\$53,151,912	\$186,204,272	
21	Supply Related LNG to DAC	Dkt 4323	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	\$47,725	
22	Supply Related LNG O & M															
23	Inventory Financing - LNG	Sch. 5, line 22	\$27,913	\$35,946	\$37,377	\$35,346	\$35,366	\$37,419	\$35,144	\$35,144	\$35,144	\$35,144	\$35,144	\$35,144	\$35,144	
24	Inventory Financing - UG	Sch. 5, line 22	\$10,405	\$12,847	\$13,457,000	\$13,667	\$15,694	\$15,394	\$16,127	\$14,731	\$13,1616	\$13,1616	\$13,1616	\$13,1616	\$13,1616	
25	Inventory Financing - UG	Sch. 4, line 30	\$55,232	\$26,558	\$21,414	\$21,306	\$21,993	\$21,993	\$21,993	\$21,993	\$21,993	\$21,993	\$21,993	\$21,993	\$21,993	
26	Total Supply Variable Costs	sum(20)(26)	\$9,551,283	\$7,868,053	\$3,853,899	\$3,835,821	\$3,238,709	\$3,238,709	\$3,241,21	\$3,628,861	\$3,628,861	\$3,628,861	\$3,628,861	\$3,628,861	\$3,628,861	
27	Supply Variable - Revenue	Sch. 3, line 23	\$4,434,813	\$6,958,849	\$3,707,879	\$3,238,870	\$2,625,857	\$3,089,837	\$3,453,090	\$7,998,497	\$7,934,145	\$25,827,122	\$26,923,354	\$25,827,122	\$26,923,354	
28	Interest Applied	(19) + (27) + (28)	\$7,178,887	\$15,036,343	\$15,206,870	\$15,220,166	\$15,130,165	\$15,521,290	\$16,734,909	\$17,291,222	\$17,716,668	\$25,288,865	\$34,030,87	\$34,030,87	\$69,173,550	
29	Month's Average Balance	(19) + (29) / 2	\$9,630,735	\$16,122,741	\$15,130,165	\$15,521,290	\$16,734,909	\$17,291,222	\$17,716,668	\$18,512,689	\$22,512,594	\$29,671,191	\$44,236,093	\$88,797,905	\$66,234,486	
30	Interest Rate (BOA Prime minus 200 bps)															
31	Interest Applied															
32	Gas Procurement Incentive/(penalty)	(30) * (31) / 365 * (1)	\$20,169	\$0	\$15,345	\$16,478	\$17,290	\$17,488	\$19,654	\$21,129	\$31,500	\$34,062,087	\$54,638,378	\$63,013,612	\$332,127	
33	Variable Ending Balance	(29) + (32) + (33)	\$17,209,139	\$15,053,460	\$15,222,414	\$15,836,644	\$16,752,198	\$17,308,710	\$19,736,322	\$25,311,994	\$34,062,087	\$54,638,378	\$63,013,612	\$69,979,022	\$69,979,022	
35	GCR Deferred Summary															
36	Beginning Balance	(3) + (19)	\$12,706,068	\$5,125,806	\$2,955,164	\$4,579,371	\$6,889,748	\$9,180,924	\$11,546,833	\$13,910,110	\$20,452,146	\$28,083,873	\$44,263,373	\$49,422,593	\$12,706,068	
37	Gas Costs	sum(4)(7)(1)(6)(20)(23)	\$12,761,552	\$7,821,584	\$7,040,809	\$7,040,809	\$7,040,809	\$6,723,761	\$6,347,793	\$9,010,690	\$6,866,560	\$9,010,690	\$9,010,690	\$9,010,690	\$9,010,690	
38	Inventory Finance	(24) + (25)	\$131,968	\$164,192	\$173,077	\$173,077	\$173,077	\$181,012	\$181,490	\$188,759	\$193,546	\$184,118	\$166,160	\$113,495	\$53,596	
39	Working Capital	(9) + (26)	\$75,090	\$45,803	\$4,174	\$4,174	\$4,174	\$40,107	\$39,295	\$40,141	\$52,853	\$52,853	\$52,853	\$52,853	\$52,853	
40	NGPMP Credits	(8)	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	\$383,333	
41	Total Costs	sum(37)(40)	\$2,585,527	\$7,648,246	\$6,837,727	\$6,834,914	\$6,036,775	\$6,712,127	\$7,204,046	\$16,544,977	\$29,892,03	\$48,122,648	\$88,333,333	\$88,333,333	\$88,333,333	
42	Revenue	(11) + (28)	\$20,174,694	\$9,823,176	\$5,25,1389	\$4,540,622	\$3,754,154	\$4,356,861	\$4,854,274	\$10,020,588	\$22,286,727	\$31,98,151	\$33,478,316	\$31,359,056	\$181,881,358	
43	Prelim. Ending Balance	(36) + (41) - (42)	\$5,116,651	\$2,959,877	\$4,575,302	\$6,383,663	\$5,731,157	\$8,031,073	\$10,358,557	\$12,721,719	\$17,473,055	\$24,255,135	\$36,154,431	\$46,228,990	\$52,933,660	
44	Month's Average Balance	(36) + (43) / 2	\$8,911,359	\$4,038,342	\$3,763,333	\$5,21,125%	\$5,21,125%	\$5,80,85	\$8,52,56	\$10,642	\$13,506	\$17,647	\$23,750	\$33,883	\$51,188,126	
45	Interest Rate (BOA Prime minus 200 bps)	(15) + (32)	\$9,156	\$4,287	\$3,868	\$3,868	\$3,868	\$3,868	\$3,868	\$3,868	\$3,868	\$3,868	\$3,868	\$3,868	\$3,868	
46	Interest Applied	(33)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
47	Gas Purchase Plan Incentives/(Penalties)															
48	Ending Bal. W/ Interest	(43) + (46) + (47)	\$5,125,806	\$2,955,164	\$4,579,371	\$6,889,748	\$9,180,924	\$11,546,833	\$13,910,110	\$20,452,146	\$28,083,873	\$44,263,373	\$44,263,373	\$44,263,373	\$53,461,348	
49	Ending Bal. W/ Interest															

REDACTED

Supply Actuals for Filing

Line No.	Description	Reference	<u>ΔMr</u> Actual (a)	<u>Mr</u> Actual (b)	<u>JMr</u> Actual (c)	<u>JMr</u> Actual (d)	<u>Mr</u> Actual (e)	<u>ΔMr</u> Actual (e)	<u>Sup</u> Actual (f)	<u>Oct</u> Actual (g)	<u>Nov</u> Actual (h)	<u>Dec</u> Actual (i)	<u>Jan</u> Actual (i)	<u>Feb</u> Actual (k)	<u>Mr</u> Actual (l)	<u>ΔMr-Mr</u> (m)
SUPPLY FIXED COSTS - Pipeline Delivery																
1	Algonquin (includes East to West, Hubline)		\$908,385	\$877,351	\$909,946	\$913,262	\$907,307	\$908,873	\$903,978	\$844,755	\$808,419	\$809,474	\$836,695	\$837,266	\$10,470,711	
2	TECO/Texas Eastern		\$747,646	\$747,646	\$747,646	\$749,165	\$761,143	\$764,217	\$73,564	\$612,516	\$706,349	\$709,129	\$707,672	\$707,729	\$8,692,420	
3	Tennessee		\$1,015,024	\$879,565	\$1,016,812	\$1,014,948	\$1,020,751	\$1,020,212	\$99,263	\$1,000,341	\$994,584	\$999,021	\$999,021	\$999,007	\$11,950,549	
4	NETNE		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	Iroquois		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$33,771	
6	Union		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
7	Transcanada		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
8	Dominion		\$33,304	\$2,258	(\$28,789)	\$522	\$2,258	\$2,258	\$2,258	\$2,258	\$2,150	\$2,150	\$2,150	\$2,150	\$24,924	
9	Transco		\$7,249	\$8,349	\$7,817	\$8,077	\$7,817	\$8,077	\$8,077	\$8,077	\$7,817	\$7,817	\$8,077	\$8,077	\$94,805	
10	National Fuel		\$4,664	\$4,664	\$4,664	\$4,664	\$4,664	\$4,664	\$4,664	\$4,664	\$4,664	\$4,664	\$4,664	\$4,664	\$55,966	
11	Columbia		\$267,644	\$277,790	\$283,479	\$271,820	\$271,826	\$271,820	\$271,820	\$267,346	\$261,543	\$260,736	\$261,122	\$272,941	\$54,464	
12	Alberta Northeast		\$374	\$357	\$359	\$359	\$359	\$359	\$359	\$349	\$349	\$349	\$349	\$349	\$349	
13	Shell Energy		(\$3,125)	(\$3,125)	(\$3,125)	(\$3,125)	(\$3,125)	(\$3,125)	(\$3,125)	(\$3,125)	(\$3,125)	(\$3,125)	(\$3,125)	(\$3,125)	(\$3,125)	
14	Coral Energy		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
15	DB Energy Trading		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,125	
16	Emira Energy		██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	\$18,750	
17	EDF Trading		██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	
18	Westerly Lateral		(\$606,773)	(\$630,025)	(\$610,464)	(\$641,422)	(\$641,502)	(\$606,659)	(\$607,587)	(\$617,422)	(\$639,849)	(\$661,040)	(\$566,612)	(\$664,334)	(\$7,463,690)	
19	Less Credits from Meter Releases		21													
20	Supply Fixed - Supplier		22	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
21	Distrigas FCS		23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
22	Supply Fixed - Supplier		24	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
23	Distrigas FCS		24													
25			25													
26	STORAGE FIXED COSTS - Facilities		27	\$85,740	\$87,161	\$85,713	\$85,557	\$85,562	\$93,741	\$93,741	\$187,481	\$85,169	\$85,192	\$93,871	\$93,860	
27	Texas Eastern		28	\$82,486	\$82,486	\$82,486	\$82,486	\$82,486	\$82,486	\$82,486	\$82,486	\$82,486	\$82,486	\$82,486	\$1,162,788	
28	Dominion		29	\$49,804	\$49,804	\$49,804	\$49,804	\$49,804	\$49,804	\$49,804	\$49,804	\$49,804	\$49,804	\$49,804	\$991,205	
29	Tennessee		30	\$9,751	\$9,751	\$9,735	\$9,735	\$9,735	\$9,735	\$9,735	\$9,735	\$9,735	\$9,735	\$9,735	\$59,7448	
30	Columbia		31	\$6,676	\$6,338	\$6,676	\$6,676	\$6,676	\$6,676	\$6,676	\$6,676	\$6,676	\$6,676	\$6,676	\$121,697	
31	Iroquois		32	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	\$46,241
32	Keyspan LNG Tank Lease Payment		33	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
33			34	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
34			35	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
35																
36	STORAGE FIXED COSTS - Delivery		37	\$152,235	\$150,929	\$150,909	\$150,794	\$150,745	\$151,766	\$151,800	\$210,918	\$210,918	\$210,918	\$210,918	\$211,376	
37	Algonquin		38	\$53,421	\$53,430	\$53,421	\$53,421	\$53,375	\$53,375	\$53,375	\$87,499	\$87,499	\$87,499	\$87,499	\$81,312	
38	TECO		39	\$39,993	\$38,171	\$39,173	\$39,193	\$39,193	\$39,224	\$39,370	\$39,370	\$91,993	\$91,993	\$91,993	\$91,993	\$1,108,084
39	Tennessee		40	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$31,047	\$31,047	\$31,047	\$155,233	
40	Dominion		41	\$14,115	\$7,053	██████████	██████████	██████████	██████████	██████████	██████████	\$14,145	\$14,145	\$14,145	\$127,242	
41	Columbia		42	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████	
42	Distrigas FLS call payment		43	Hess Peaking Supply at Salem												
43	Hess Peaking Supply at Dracut		44	Hess Peaking Supply at Dracut												
44	Repsol Peaking Supply at Dracut		45	Repsol Peaking Supply at Dracut												
45			46													
46			47	TOTAL FIXED COSTS	sum[(2)(46)]	\$3,473,570	\$3,302,783	\$3,457,201	\$3,448,816	\$3,476,650	\$3,522,553	\$3,452,409	\$3,143,675	\$3,381,417	\$3,422,689	\$40,952,765

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Supply Actuals for Filing

Line No.	Description	Reference	<u>Δmr</u> Actual (a)	<u>Mr</u> Actual (b)	<u>JUL</u> Actual (c)	<u>ΔuL</u> Actual (d)	<u>Sup</u> Actual (e)	<u>Oct</u> Actual (f)	<u>Nov</u> Actual (h)	<u>Dec</u> Actual (i)	<u>Jan</u> Actual (j)	<u>Feb</u> Actual (k)	<u>Mr</u> Actual (l)	<u>Δmr-Mr</u> (m)
48	VARIABLE SUPPLY COSTS (Includes Injections)													
49	Tennessee Zone 0													
50	Tennessee Zone 1													
51	Tennessee Connection													
52	Tennessee Duct													
53	TECO STX													
54	TECO ELA													
55	TECO WLA													
56	TECO ETX													
57	TECO NF													
58	M3 Delivered													
59	Maumee													
60	Broadrun Col													
61	Columbia Eagle and Downingtown													
62	Transco Zone 2													
63	Dominion to TECO FTS													
64	Transco Zone 3													
65	ANE to Tennessee													
66	Niagara to Tennessee													
67	TECO to B & W													
68	DistriGas FCS													
69	Hubline													
70	Hess Peaking Supply at Salem													
71	Hess Peaking Supply at Duct													
72	Rensol Peaking Supply at Duct													
73	Total Pipeline Commodity Charges	sum(49)(72)	\$7,941,734	\$3,856,904	\$2,792,963	\$2,469,975	\$2,265,723	\$2,450,047	\$4,475,226	\$9,959,704	\$22,047,331	\$40,219,993	\$31,651,323	\$29,811,055
74	Hedging Settlements and Amortization		\$862,765	\$337,000	\$297,974	\$678,721	\$493,451	\$394,424	\$1,354,503	\$1,348,648	\$1,354,503	(\$710,147)	(\$3,861,267)	(\$2,353,427)
75	Hedging Contracts - Commission & Other Fees		\$1,924	\$976	\$1,049	\$1,664	\$1,520	\$1,378	\$1,143	\$2,684	\$971	\$1,235	\$1,664	\$17,849
76	Hedging Contracts - Net Carry of Collateral		\$741	\$215	\$1,530	\$3,791	\$6,002	\$3,167	\$2,970	\$5,000	\$1,228	\$337	(\$168)	\$24,812
77	Retunds (Columba)		(\$377,804)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$38)	(\$38,961)
78	Less: Costs of Injections			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
79	TOTAL VARIABLE SUPPLY COSTS	sum(73)-(78)	\$8,429,361	\$4,195,095	\$3,093,515	\$3,091,161	\$2,951,966	\$2,948,043	\$5,074,261	\$11,314,494	\$23,405,746	\$39,511,154	\$27,791,085	\$27,448,174
80	Underground Storage		\$379,630	\$198,806	\$73,200	\$104,869	\$30,166	\$145,419	\$316,040	\$1,544,384	\$2,726,704	\$4,505,943	\$5,336,672	\$3,440,362
81	LNG Withdrawals and Trucking		\$101,650	\$156,832	\$101,975	\$108,965	\$101,177	\$106,695	\$105,925	\$196,004	\$204,753	\$2,484,729	\$549,035	\$314,840
82	Storage Delivery Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
83	TOTAL VARIABLE STORAGE COSTS	sum(80)-(82)	\$841,280	\$355,688	\$175,175	\$213,833	\$131,284	\$252,115	\$421,965	\$1,740,388	\$2,931,457	\$6,990,672	\$5,885,707	\$3,755,202
84	TOTAL VARIABLE COSTS	(79) + (83)	\$9,270,641	\$4,550,782	\$3,268,690	\$3,304,995	\$3,083,249	\$3,200,158	\$5,496,225	\$13,054,882	\$26,337,204	\$46,501,826	\$33,676,792	\$31,203,376
85	TOTAL SUPPLY COSTS	(47) + (84)	\$12,744,210	\$7,853,565	\$6,725,891	\$6,753,810	\$6,559,899	\$6,722,711	\$8,948,634	\$16,198,557	\$29,717,300	\$49,883,243	\$37,167,700	\$34,626,066
														\$223,901,585

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Supply Actuals for Filing

Line No.	Description	Reference	<u>ΔMr</u> Actual (a)	<u>Mr</u> Actual (b)	<u>Mr</u> Actual (c)	<u>Mr</u> Actual (d)	<u>Mr</u> Actual (e)	<u>Sup</u> Actual (f)	<u>Oct</u> Actual (g)	<u>Dec</u> Actual (h)	<u>Jan</u> Actual (i)	<u>Feb</u> Actual (k)	<u>Mr</u> Actual (l)	<u>ΔMr-Mr</u> (m)	
86	Storage Costs for FT-2 Calculation														
87	Storage Fixed Costs - Facilities		\$40,855	\$399,280	\$398,154	\$397,998	\$398,003	\$406,182	\$413,100	\$479,528	\$391,253	\$399,932	\$399,921	\$4,875,459	
88	Storage Fixed Costs - Deliveries		\$663,428	\$702,440	\$694,430	\$696,135	\$696,040	\$699,293	\$694,673	\$746,791	\$790,601	\$779,351	\$790,601	\$8,474,385	
89	sub-total Storage Costs	sum(87)-(88)]	\$1,064,283	\$1,011,719	\$1,092,584	\$1,094,132	\$1,094,043	\$1,105,475	\$1,107,773	\$956,319	\$1,181,854	\$1,179,283	\$1,190,522	\$13,349,844	
90	LNG Demand to DAC	Sch. 1, line 6	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	
91	Inventory Financing	Sch. 5, line 23	\$131,968	\$164,192	\$173,077	\$173,912	\$181,490	\$188,759	\$193,546	\$184,118	\$166,760	\$113,495	\$75,826	\$53,596	
92	Supply related LNG OEM Costs	Sch. 1, line 7	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$47,965	\$75,581	
93	Working Capital Requirement	Sch. 4, line 15	\$19,558	\$18,845	\$19,761	\$19,711	\$19,876	\$20,148	\$19,732	\$17,902	\$19,311	\$19,960	\$19,556	\$23,963	
94	Total FT-2 Storage Fixed Costs	sum(89)-(93)]	\$1,140,008	\$1,208,656	\$1,209,321	\$1,210,755	\$1,219,309	\$1,238,281	\$1,244,950	\$1,082,238	\$1,291,817	\$1,283,559	\$1,198,969	\$1,187,574	
95	System Storage MDQ (Dth)	138,170	139,384	139,697	139,530	138,919	139,328	140,083	140,976	139,864	125,864	144,604	144,188	1,670,438	
96	FT-2 Storage Cost per MDQ (Dth)	(94) / (93)	\$8,2508	\$8,6714	\$8,6567	\$8,6773	\$8,7771	\$8,8875	\$8,8872	\$7,6768	\$9,2362	\$9,8405	\$8,2914	\$8,2363	
97	Pipeline Variable	(84)	\$9,270,641	\$4,550,782	\$3,268,690	\$3,304,995	\$3,083,249	\$3,200,158	\$5,496,225	\$13,054,882	\$26,337,204	\$46,501,826	\$33,676,792	\$31,203,376	
98	Less Non-firm Gas Costs	(\$179,995)	(\$154,699)	(\$34,947)	(\$38,610)	(\$36,653)	(\$37,160)	(\$67,033)	(\$73,267)	(\$210,486)	(\$325,078)	(\$563,574)	\$344,636	(\$1,376,844)	
99	Less Company Use	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
100	Less Manchester St Balancing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
101	Plus Cashout	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
102	Less Mktwr Withdrawals/Injections	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
103	Mktwr Over-draws/Undertakes	(\$27,769)	(\$26,396)	(\$153,151)	(\$94,371)	(\$19,029)	(\$30,918)	(\$63,800)	(\$112,741)	(\$143,771)	(\$313,920)	(\$1,976,793)	(\$42,694)	\$2,584,141	
104	Plus Pipeline Surchg/Credit	\$246,805	\$239,232	\$247,437	\$239,559	\$247,921	\$248,123	\$240,369	\$248,767	\$66,948	\$59,522	\$73,700	\$59,012	\$2,217,896	
105	Less Mktwr FT-2 Daily weather true-up	\$6,677	(\$61,742)	(\$22,347)	(\$6,836)	\$0	(\$7,819)	(\$19,305)	(\$25,745)	\$30,576	\$94,874	(\$52,843)	(\$45,230)	(\$109,741)	
106	TOTAL FIRM COMMODITY COSTS	sum(97)-(105)]	\$9,316,359	\$4,547,178	\$3,611,984	\$3,593,778	\$3,275,488	\$3,372,384	\$5,586,658	\$13,173,778	\$26,368,013	\$46,645,065	\$35,110,868	\$31,519,121	\$186,264,272

GCR Revenue

No.	Description	<u>Δur</u> <u>Actual</u> (a)	<u>Max</u> <u>Actual</u> (b)	<u>Jun</u> <u>Actual</u> (c)	<u>Jul</u> <u>Actual</u> (d)	<u>Aug</u> <u>Actual</u> (e)	<u>Sep</u> <u>Actual</u> (f)	<u>Oct</u> <u>Actual</u> (g)	<u>Nov</u> <u>Actual</u> (h)	<u>Dec</u> <u>Actual</u> (i)	<u>Jan</u> <u>Actual</u> (j)	<u>Feb</u> <u>Actual</u> (k)	<u>Mar</u> <u>Actual</u> (l)	<u>Apr-Mar</u> (m)		
I. Fixed Cost Revenue --																
2	(a) Low Load dth Fixed Cost Factor	\$2,917,548 (\$1,818,00) \$5,303,990	1,388,813 \$1,818,181 \$2,524,943	755,588 \$1,817,3 \$1,373,147	551,238 \$1,817,3 \$1,001,739	538,349 \$1,817,1 \$978,215	552,137 \$1,814,2 \$1,162,965	641,044 \$1,814,2 \$4,022,219	1,416,269 \$1,237,2 \$5,753,942	4,703,014 \$1,223,5 \$5,734,467	4,685,769 \$1,223,8 \$5,563,140	4,545,308 \$1,223,9 \$36,180,427	25,980,936			
3	Low Load Revenue															
5	(b) High Load dth Fixed Cost Factor	142,513 (\$1,3496 \$192,339	97,046 \$1,3525 \$131,254	34,902 \$1,3509 \$47,147	134,856 \$1,3491 \$181,647	18,882 \$1,3490 \$25,473	101,823 \$1,6618 \$115,300	69,384 \$1,6618 \$128,451	110,468 \$1,628 \$152,166	154,377 \$225,569	228,604 \$234,705	228,266 \$227,581	1,558,940 \$1,798,893			
6	High Load Revenue															
8	sub-total throughput Dth	(2) + (5)	3,060,061	1,485,859	790,490	686,094	557,230	653,960	710,428	1,526,737	3,440,236	4,931,618	4,923,590	27,539,876		
9	FT-2 Storage Revenue from marketers															
10	TOTAL Fixed Revenue	(4) + (7) + (9)	\$5,739,881	\$2,464,327	\$1,550,600	\$1,302,552	\$1,128,267	\$1,267,024	\$1,401,184	\$2,022,091	\$4,352,582	\$6,154,409	\$6,555,963	\$6,065,970	\$40,404,851	
II. Variable Cost Revenue --																
12	(a) Firm Sales dth Variable Supply Cost Factor	(8) (\$14,362,800	3,060,061 \$4,6936 \$6,975,459	1,485,859 \$4,6922 \$3,709,166	790,490 \$4,6907 \$3,218,268	686,094 \$2,614,136	557,230 \$3,403,662	653,960 \$4,7910	710,428 \$5,2154	1,526,737 \$7,962,551	3,440,236 \$17,80,149	4,931,618 \$5,1945	4,923,590 \$5,1921	4,773,574 \$5,1956	27,539,876	
13	Variable Supply Revenue															
15	(b) TSS Sales dth TSS Surcharge Factor	Sch. 6, line 20 Company's website (15) * (16)	11,806 \$0,0000	9,119 (\$0,027)	580 \$0,0000	967 \$0,0000	799 \$0,0000	3,105 \$0,0000	6,955 \$0,0000	18,746 \$0,0000	31,056 \$0,0000	34,349 \$0,7900	28,576 \$0,1710	145,031 \$4,886	\$139,150,689	
16	TSS Surcharge Revenue															
18	(c) Default Sales dth Variable Supply Cost Factor	Sch. 6, line 60 (20) / (18)	6,429 \$11,0402 \$70,978	1,890 (\$9,2175) (\$17,422)	(1,714) \$7,8958 (\$13,537)	1,457 \$7,2286 \$10,531	1,242 \$6,0904 \$7,564	946 \$6,5121 \$6,162	1,265 \$6,5112 \$8,233	2,475 \$16,114	7,881 \$7,0126 \$55,267	7,468 \$27,0856 \$202,267	49,428 \$27,3405 \$1,351,395	3,273 \$1,48,1097 \$484,822	82,040 \$2,182,375	
19	Variable Supply Revenue															
21	(d) Peaking Gas Revenue		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
22	(e) Deferred Responsibility		\$1,035	\$812	\$5,160	\$9,271	\$4,156	\$0	\$41,195	\$19,832	\$8,729	\$19,360	\$0	\$1,872	\$11,421	
23	TOTAL Variable Revenue	(14)+(17)+(20)+(21)+(22)	\$14,434,813	\$6,958,849	\$3,700,789	\$3,238,070	\$2,625,857	\$3,089,837	\$3,453,090	\$7,998,497	\$17,934,145	\$25,827,122	\$26,922,354	\$25,293,086	\$141,476,508	
24	Total Gas Cost Revenue (w/o FT-2)	(10) + (23)	\$20,174,694	\$9,823,176	\$5,251,389	\$4,540,622	\$3,754,124	\$4,356,861	\$4,854,274	\$10,020,588	\$22,286,727	\$31,981,531	\$33,478,316	\$31,359,056	\$181,881,358	

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WORKING CAPITAL

No.	Line	Description	<u>Amr</u> ΔActual (a)	<u>Max</u> ΔActual (b)	<u>Im</u> ΔActual (c)	<u>Amr</u> ΔActual (d)	<u>Im</u> ΔActual (e)	<u>Sup</u> ΔActual (f)	<u>Ocr</u> ΔActual (g)	<u>Nov</u> ΔActual (h)	<u>Dec</u> ΔActual (i)	<u>Jan</u> ΔActual (j)	<u>Eeb</u> ΔActual (k)	<u>Mar</u> ΔActual (l)	<u>Apr-Mar</u> (m)
Reference															
1	Supply Fixed Costs	Sch. 1, line 5	\$3,473,570	\$3,302,783	\$3,457,201	\$3,448,816	\$3,476,650	\$3,522,553	\$3,452,409	\$3,143,675	\$3,380,096	\$3,422,689	\$40,952,765		
2	Less: LNG Demand o DAC	Sch. 1, line 6	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$1,488,790)	
Dkt 4323			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
(2) + (3)			(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$124,066)	(\$1,488,790)	
(1) + (4)			\$3,349,504	\$3,178,717	\$3,333,135	\$3,324,750	\$3,352,584	\$3,398,487	\$3,328,343	\$3,019,609	\$2,256,030	\$3,257,351	\$3,298,623	\$39,463,975	
6	Number of Days Lag	Dkt 4323	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	
7	Working Capital Requirement	[{(5) * (6)] / 365}	\$197,391	\$187,327	\$196,427	\$195,933	\$197,573	\$200,278	\$196,144	\$177,950	\$191,883	\$191,961	\$198,413	\$194,393	
8	Cost of Capital	Dkt 4323	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	
9	Return on Working Capital Requirement	(7) * (8)	\$14,883	\$14,124	\$14,811	\$14,773	\$14,897	\$15,101	\$14,789	\$13,417	\$14,468	\$14,474	\$14,960	\$14,657	
10	Weighted Cost of Debt	Dkt 4323	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	
11	Interest Expense	(7) * (10)	\$5,645	\$5,558	\$5,618	\$5,604	\$5,651	\$5,728	\$5,610	\$5,089	\$5,488	\$5,490	\$5,675	\$5,560	
12	Taxable Income	Dkt 4323	\$9,238	\$8,767	\$9,193	\$9,170	\$9,246	\$9,373	\$9,180	\$8,328	\$8,980	\$8,984	\$9,286	\$9,098	
13	1 - Combined Tax Rate	(12) * (13)	\$14,212	\$13,488	\$14,143	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	
14	Return and Tax Requirement														
15	Supply Fixed Working Capital Requirement	(11) + (14)	\$19,558	\$18,845	\$19,761	\$19,711	\$19,816	\$20,148	\$19,702	\$17,932	\$19,303	\$19,311	\$19,960	\$19,566	
16	Supply Variable Costs	Sch. 1, line 21	\$9,316,359	\$4,547,178	\$3,611,984	\$3,593,778	\$0	\$3,275,488	\$0	\$3,372,384	\$0	\$5,866,658	\$13,317,378	\$26,368,013	
17	Less: Balancing Related LNG Commodity (to DAC)	Sch. 1, line 22	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$76,679)	(\$88,575)	\$46,645,065	
Dkt 4323														(\$722,185)	
(17) + (18)														(\$200,181)	
(16) + (19)														(\$1,156,661)	
Dkt 4323	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51		
22	Working Capital Requirement	[{(20) * (21)] / 365]	\$549,027	\$267,972	\$212,860	\$211,787	\$193,029	\$198,740	\$239,230	\$780,294	\$1,545,864	\$2,706,305	\$2,057,339	\$1,853,224	
Dkt 4323	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%		
(22) * (23)	\$41,397	\$20,205	\$16,050	\$15,969	\$14,554	\$14,985	\$24,824	\$58,834	\$16,894	\$204,055	\$155,123	\$155,123	\$155,123		
Dkt 4323	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%		
(22) * (25)	\$15,702	\$7,664	\$6,088	\$6,057	\$5,521	\$5,684	\$9,416	\$22,316	\$44,298	\$77,400	\$58,940	\$58,940	\$53,002		
24	Return on Working Capital Requirement														
25	Weighted Cost of Debt														
26	Interest Expense														
27	Taxable Income	(24) * (26)	\$25,694	\$12,541	\$9,962	\$9,912	\$9,034	\$9,301	\$15,408	\$36,518	\$73,487	\$126,655	\$96,282	\$86,731	
Dkt 4323	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65		
(27) * (28)	\$39,530	\$19,294	\$15,326	\$15,249	\$13,898	\$14,309	\$23,705	\$56,181	\$11,518	\$194,854	\$148,128	\$148,128	\$133,492		
30	Supply Variable Working Capital Requirement	(26) + (29)	\$55,232	\$26,058	\$21,414	\$21,306	\$19,419	\$19,993	\$33,121	\$78,498	\$155,816	\$272,254	\$206,968	\$186,434	\$109,742

INVENTORY FINANCE

Line No.	Description	Δmr Actual (a)	Max Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Δmr-Mar (m)	
1	Storage Inventory Balance	\$12,147,854	\$14,851,776	\$15,562,508	\$15,573,726	\$16,605,174	\$17,491,191	\$17,809,379	\$16,757,939	\$14,909,989	\$11,324,186	\$7,678,242	\$5,487,679		
2	Monthly Storage Deferal/Amortization	\$264,306	\$446,052	\$624,371	\$728,452	\$773,861	\$806,251	\$814,139	\$814,139	\$789,715	\$598,928	\$56,990	(\$0)	\$5,487,679	
3	Cost of Capital Subtotal	\$12,412,160	\$15,297,828	\$16,196,879	\$16,302,178	\$17,379,035	\$18,623,518	\$17,572,078	\$15,699,704	\$11,723,114	\$7,735,231	7.54%	7.54%	7.54%	
4	Cost of Capital	(1) + (2)	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%				
5	Return on Working Capital Requirement	Dkt 4332 (3) * (4)	\$93,877	\$1,153,456	\$1,220,491	\$1,229,184	\$1,310,379	\$1,379,627	\$1,404,213	\$1,324,935	\$1,185,758	\$88,923	\$583,236	\$413,771	\$13,022,850
6	Weighted Cost of Debt	Dkt 4333 (3) * (6)	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%		
7	Interest Charges Financed	\$354,988	\$437,518	\$462,945	\$466,242	\$497,040	\$523,307	\$532,633	\$502,561	\$449,012	\$335,281	\$221,228	\$156,948	\$4,939,702	
8	Taxable Income	(5) - (7)	\$804,889	\$715,938	\$757,546	\$762,942	\$813,339	\$856,320	\$871,581	\$822,373	\$734,746	\$545,642	\$362,009	\$256,823	
9	I - Combined Tax Rate	Dkt 4323 (8) / (9)	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65		
10	Return and Tax Requirement	\$893,676	\$1,101,444	\$1,165,555	\$1,175,757	\$1,251,291	\$1,317,416	\$1,340,893	\$1,265,190	\$1,130,379	\$844,064	\$556,937	\$395,113	\$12,435,613	
11	Working Capital Requirement	(7) + (10)	\$1,248,663	\$1,538,961	\$1,628,400	\$1,639,999	\$1,748,331	\$1,840,723	\$1,873,526	\$1,767,751	\$1,579,390	\$1,179,345	\$778,164	\$552,061	\$17,75,315
12	Monthly Average	(11) / 12	\$104,055	\$128,247	\$135,700	\$136,667	\$145,694	\$153,394	\$156,127	\$147,313	\$131,616	\$98,279	\$64,847	\$46,005	\$1,447,943
13	LNG Inventory Balance	\$3,329,570	\$4,287,751	\$4,458,514	\$4,335,479	\$4,269,921	\$4,218,563	\$4,463,453	\$4,390,342	\$4,192,135	\$1,815,018	\$1,309,612	\$905,495		
14	Cost of Capital	Dkt 4323 (13) * (14)	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%		
15	Return on Working Capital Requirement		\$251,050	\$323,296	\$336,172	\$326,895	\$321,952	\$318,080	\$336,544	\$331,032	\$136,087	\$98,745	\$68,274	\$1,164,979	
16	Weighted Cost of Debt	Dkt 4332 (13) * (16)	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%		
17	Interest Charges Financed	\$95,226	\$122,630	\$127,514	\$123,995	\$122,120	\$120,651	\$127,654	\$125,564	\$119,895	\$51,910	\$37,455	\$25,897	\$1,200,509	
18	Taxable Income	(15) - (17)	\$155,824	\$200,667	\$208,658	\$202,900	\$199,832	\$197,429	\$208,890	\$205,468	\$196,192	\$84,943	\$6,1290	\$42,377	
19	I - Combined Tax Rate	Dkt 4323 (18) / (19)	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	\$3,022,261	
20	Return and Tax Requirement	\$239,729	\$308,718	\$321,013	\$312,154	\$307,434	\$305,737	\$321,369	\$316,105	\$301,834	\$130,681	\$94,292			
21	Working Capital Requirement	(17) + (20)	\$334,955	\$431,348	\$448,527	\$436,149	\$429,554	\$424,387	\$449,023	\$441,668	\$421,729	\$182,591	\$131,747	\$91,093	\$4,222,771
22	Monthly Average	(21) / 12	\$27,913	\$35,946	\$37,377	\$36,346	\$35,796	\$35,366	\$37,419	\$36,806	\$35,144	\$15,216	\$10,979	\$7,591	\$351,898
23	TOTAL GCR Inventory Financing Costs	(12) + (22)	\$131,968	\$164,192	\$173,077	\$173,012	\$181,490	\$188,759	\$193,546	\$184,118	\$166,760	\$113,495	\$75,826	\$53,596	\$1,799,840

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The Narragansett Electric Company
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Actual Dth Usage for Filing

Line No.	Rate Class	THROUGHPUT(Dth)
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Line No.	Rate Class	Max Actual (b)	Min Actual (c)	Max Actual (d)	Min Actual (e)	Max Actual (f)	Min Actual (g)	Max Actual (h)	Min Actual (i)	Max Actual (j)	Min Actual (k)	Max Actual (l)	Min Actual (m)	
1	Sales	85,531	54,040	36,130	28,862	27,102	27,610	30,904	52,939	103,262	141,802	141,832	138,940	
2	Residential Non-Heating Low Income	2,925	1,352	914	865	851	903	1,088	2,401	5,198	6,878	6,529	6,217	
3	Residential Heating	1,994,126	1,004,359	517,766	368,525	351,754	355,843	413,994	969,814	2,219,000	3,163,797	3,145,750	3,050,687	
4	Residential Heating Low Income	188,891	94,414	52,160	41,890	40,617	40,489	45,535	99,566	219,099	302,038	302,587	285,752	
5	Small C&I	277,138	127,734	48,653	40,235	44,141	35,169	48,369	113,987	183,797	405,782	549,634	516,182	
6	Medium C&I	320,301	185,551	115,786	87,354	90,782	89,762	102,141	120,230	37,111	88,624	131,947	126,710	
7	Large LLF	77,249	42,508	16,520	9,284	9,642	12,900	18,230	23,172	22,769	21,799	31,263	47,438	
8	Extra Large LLF	30,093	19,316	19,196	15,776	18,763	19,130	10,449	17,585	10,449	14,383	19,657	19,114	
9	Large HLF	48,040	(71,177)	5,725	0	0	0	0	0	0	0	0	0	
10	Extra Large LLF	23,961	18,645	(21,333)	89,354	(27,834)	53,770	13,441	31,828	22,596	42,770	36,078	53,896	
11	Extra Large HLF	0	0	0	0	0	0	0	0	0	0	0	0	
12	Total Sales	3,048,255	1,476,740	791,517	685,514	556,263	633,161	707,323	1,519,782	3,421,490	4,900,562	4,889,241	4,744,998	
13	TSS	91	50	0	2	4	0	0	29	66	131	188	251	
14	Small	6,241	4,008	322	356	833	255	1,825	3,756	9,638	14,531	16,516	8,550	
15	Medium	5,472	1,367	(1,344)	222	131	133	502	2,640	8,519	10,503	11,701	10,385	
16	Large LLF	2	0	(5)	0	0	411	779	531	1,251	2,402	6,514	50,231	
17	Large HLF	0	0	0	0	0	0	0	0	0	0	0	12,405	
18	Extra Large LLF	0	0	0	0	0	0	0	0	0	0	0	0	
19	Extra Large HLF	0	0	0	0	0	0	0	0	0	0	0	14,753	
20	Total TSS	11,806	9,119	(1,027)	580	967	799	3,105	6,955	18,746	31,056	34,349	28,576	
21	Sales & TSS Throughput	85,531	54,040	36,130	28,862	27,102	27,610	30,904	52,939	103,262	141,802	141,832	138,940	
22	Residential Non-Heating Low Income	2,925	1,352	914	865	851	903	1,088	2,401	5,198	6,878	6,529	6,217	
23	Residential Non-Heating High Income	1,994,126	1,004,359	517,766	368,525	351,754	355,843	413,994	969,814	2,219,000	3,163,797	3,145,750	3,050,687	
24	Residential Heating	188,891	94,414	52,160	41,890	40,617	40,489	45,535	99,566	219,099	302,587	289,373	285,752	
25	Residential Heating Low Income	277,229	127,784	48,653	40,237	44,145	35,170	48,369	113,987	183,797	405,782	549,634	516,182	
26	Small C&I	326,542	189,559	116,108	87,710	91,614	90,017	103,966	187,552	415,426	564,165	577,698	561,582	
27	Medium C&I	22,721	43,875	15,176	9,506	9,773	13,033	18,731	39,751	97,143	142,000	138,411	142,232	
28	Large LLF	30,096	19,316	19,190	15,776	18,763	19,951	23,300	22,322	22,537	49,839	300,952	151,744	
29	Large HLF	48,040	(71,177)	5,725	3,370	445	17,585	10,449	5,570	14,383	19,657	19,114	17,359	
30	Extra Large LLF	23,961	22,339	(21,333)	89,354	(27,834)	53,770	13,441	31,828	23,596	42,770	36,078	53,896	
31	Extra Large HLF	0	0	0	0	0	0	0	0	0	0	0	0	
32	Total Sales & TSS Throughput	3,060,061	1,485,859	790,490	686,094	557,230	633,960	710,428	1,526,737	3,440,236	4,931,618	4,923,590	4,773,574	
33	FT-1 Transportation	81,908	25,556	14,919	19,597	24,794	24,983	38,162	49,943	104,331	126,675	131,970	92,489	
34	FT-1 Medium	133,147	24,438	(4,613)	(2,859)	13,591	16,645	36,578	85,095	188,438	212,579	240,126	157,623	
35	FT-1 Large LLF	52,192	26,043	27,488	30,151	25,405	34,517	34,422	41,252	26,891	109,662	147,360	503,060	
36	FT-1 Large HLF	248,564	50,018	(6,139)	(14,996)	11,822	20,588	27,493	95,094	215,119	218,360	218,360	151,744	
37	FT-1 Extra Large LLF	522,534	317,057	292,474	379,816	414,163	335,695	340,931	392,319	496,401	544,293	582,954	428,840	
38	FT-1 Extra Large HLF	6,429	1,890	0,714	1,457	1,242	1,265	2,475	7,881	47,411	49,428	42,840	5,047,478	
39	Default	1,044,775	400,003	322,415	414,066	491,018	433,373	479,250	672,602	1,053,422	1,128,305	1,332,500	881,329	
40	Total FT-1 Transportation	1,044,775	400,003	322,415	414,066	491,018	433,373	479,250	672,602	1,053,422	1,128,305	1,332,500	881,329	
41	FT-2 Transportation	1,507	872	517	421	433	481	525	1,579	4,164	6,702	6,537	6,308	
42	FT-2 Small	180,314	110,103	56,086	51,068	46,472	46,807	53,925	101,590	195,939	287,304	276,280	291,279	
43	FT-2 Medium	53,155	38,768	18,962	15,460	15,625	23,065	26,724	12,041	142,564	214,027	204,243	1,697,167	
44	FT-2 Large LLF	30,823	23,820	25,277	19,716	30,769	30,766	31,206	30,395	38,320	50,395	52,467	46,854	
45	FT-2 Large HLF	4,176	1,520	189	136	173	1,352	2,564	5,451	8,637	12,131	13,240	12,647	
46	FT-2 Extra Large LLF	15,249	11,967	10,554	8,133	11,066	11,362	10,989	12,051	15,099	23,197	21,124	22,028	
47	FT-2 Extra Large HLF	382,897	201,436	117,937	104,016	93,321	106,396	117,855	223,732	404,723	581,456	583,675	583,359	
48	Total FT-2 Transportation	49	Total Throughput	85,531	54,040	36,130	28,862	27,102	27,610	30,904	52,939	103,262	141,802	141,832
50	Residential Non-Heating Low Income	2,925	1,352	914	865	851	903	1,088	2,401	5,198	6,878	6,529	6,217	
51	Residential Non-Heating High Income	1,994,126	1,004,359	517,766	368,525	351,754	355,843	413,994	969,814	2,219,000	3,163,797	3,145,750	3,050,687	
52	Residential Heating	188,891	94,414	52,160	41,890	40,617	40,489	45,535	99,566	219,099	302,587	289,373	285,752	
53	Residential Heating Low Income	278,735	128,656	49,170	40,658	44,579	35,651	49,094	115,595	324,268	517,511	521,961	496,004	
54	Small C&I	588,764	325,217	187,113	158,376	162,881	161,807	196,053	339,084	715,690	978,184	985,947	945,350	
55	Medium C&I	366,696	121,469	39,332	25,608	38,824	45,303	78,375	196,886	428,144	556,305	592,564	504,099	
56	Large LLF	113,111	69,178	68,532	71,204	63,883	84,827	84,960	101,997	101,893	211,768	211,768	120,561	
57	Large HLF	300,780	(64,639)	120,571	124,441	39,525	40,905	43,662	106,115	242,187	242,187	181,749	1,337,119	
58	Extra Large LLF	561,744	351,363	281,695	477,302	397,396	400,826	365,362	436,198	535,096	614,901	643,699	507,630	
59	Extra Large HLF	6,429	1,890	(1,714)	1,457	1,242	946	1,265	2,475	7,881	7,448	49,428	32,73	
60	Total Throughput	4,487,733	2,087,298	1,204,842	1,141,569	1,193,729	1,307,533	2,423,071	4,98,381	6,641,370	6,839,764	6,238,261	39,693,754	

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The Narragansett Electric Company
d/b/a National Grid
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**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
GAS COST RECOVERY FILING
WITNESS: ANN E. LEARY
SEPTEMBER 2, 2014**

**Attachment AEL-3
Projected Gas Cost Balances**

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
GAS COST RECOVERY FILING
WITNESS: ANN E. LEARY
SEPTEMBER 2, 2014**

**Attachment AEL-4
Bill Impact Analysis**

National Grid - RI Gas
 Gas Cost Recovery (GCR) Filing
Bill Impact Analysis with Various Levels of Consumption:

Line No.	Residential Heating:										Difference due to:									
	(1)	(2)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET						
(3)																				
(4)																				
(5)	550	\$848.80	\$919.64	(\$70.85)	-7.7%		(\$31.34)	(\$37.38)	\$0.00	\$0.00	\$0.00		(\$2.13)							
(6)	608	\$99.95	\$998.08	(\$78.12)	-7.8%		(\$34.45)	(\$41.33)	\$0.00	\$0.00	\$0.00		(\$2.34)							
(7)	667	\$992.18	\$1,078.14	(\$85.96)	-8.0%		(\$38.06)	(\$45.32)	\$0.00	\$0.00	\$0.00		(\$2.58)							
(8)	727	\$1,064.58	\$1,157.95	(\$93.37)	-8.1%		(\$41.14)	(\$49.43)	\$0.00	\$0.00	\$0.00		(\$2.80)							
(9)	788	\$1,135.20	\$1,236.49	(\$101.30)	-8.2%		(\$44.71)	(\$53.55)	\$0.00	\$0.00	\$0.00		(\$3.04)							
(10)	Average Customer	\$846	\$1,200.96	\$1,309.75	(\$108.79)	-8.3%	(\$48.02)	(\$57.51)	\$0.00	\$0.00	\$0.00		(\$3.26)							
(11)	904	\$1,266.86	\$1,382.76	(\$115.90)	-8.4%		(\$50.95)	(\$61.47)	\$0.00	\$0.00	\$0.00		(\$3.48)							
(12)	966	\$1,337.16	\$1,461.34	(\$124.19)	-8.5%		(\$54.77)	(\$65.69)	\$0.00	\$0.00	\$0.00		(\$3.73)							
(13)	1,023	\$1,401.56	\$1,533.22	(\$131.66)	-8.6%		(\$58.15)	(\$69.56)	\$0.00	\$0.00	\$0.00		(\$3.95)							
(14)	1,081	\$1,466.38	\$1,605.06	(\$138.67)	-8.6%		(\$61.01)	(\$73.50)	\$0.00	\$0.00	\$0.00		(\$4.16)							
(15)	1,145	\$1,536.87	\$1,684.44	(\$147.57)	-8.8%		(\$65.29)	(\$77.85)	\$0.00	\$0.00	\$0.00		(\$4.43)							
	Residential Heating Low Income:										Difference due to:									
(16)																				
(17)																				
(18)																				
(19)																				
(20)	550	\$806.31	\$877.15	(\$70.85)	-8.1%		(\$31.34)	(\$37.38)	\$0.00	\$0.00	\$0.00		(\$2.13)							
(21)	608	\$874.72	\$952.84	(\$78.12)	-8.2%		(\$34.45)	(\$41.33)	\$0.00	\$0.00	\$0.00		(\$2.34)							
(22)	667	\$944.17	\$1,030.13	(\$85.96)	-8.3%		(\$38.06)	(\$45.32)	\$0.00	\$0.00	\$0.00		(\$2.58)							
(23)	727	\$1,013.86	\$1,107.23	(\$93.37)	-8.4%		(\$41.14)	(\$49.43)	\$0.00	\$0.00	\$0.00		(\$2.80)							
(24)	788	\$1,082.01	\$1,183.31	(\$101.30)	-8.6%		(\$44.71)	(\$53.55)	\$0.00	\$0.00	\$0.00		(\$3.04)							
(25)	Average Customer	\$846	\$1,145.56	\$1,254.35	(\$108.79)	-8.7%	(\$48.02)	(\$57.51)	\$0.00	\$0.00	\$0.00		(\$3.26)							
(26)	904	\$1,209.26	\$1,325.15	(\$115.90)	-8.7%		(\$50.95)	(\$61.47)	\$0.00	\$0.00	\$0.00		(\$3.48)							
(27)	966	\$1,277.20	\$1,401.39	(\$124.19)	-8.9%		(\$54.77)	(\$65.69)	\$0.00	\$0.00	\$0.00		(\$3.73)							
(28)	1,023	\$1,339.46	\$1,471.12	(\$131.66)	-8.9%		(\$58.15)	(\$69.56)	\$0.00	\$0.00	\$0.00		(\$3.95)							
(29)	1,081	\$1,402.18	\$1,540.85	(\$138.67)	-9.0%		(\$61.01)	(\$73.50)	\$0.00	\$0.00	\$0.00		(\$4.16)							
(30)	1,145	\$1,470.44	\$1,618.00	(\$147.57)	-9.1%		(\$65.29)	(\$77.85)	\$0.00	\$0.00	\$0.00		(\$4.43)							

Residential Non-Heating:

(31)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	ISR	EE	LIHEAP	GET
(32)											
(33)											
(34)		\$337.99	\$334.99	(\$17.00)	-4.8%						
(35)	140	\$337.99	\$375.05	(\$18.99)	-5.1%						
(36)	155	\$336.06	\$396.28	(\$21.00)	-5.3%						
(37)	171	\$375.28	\$413.34	(\$22.47)	-5.4%						
(38)	184	\$390.87	\$431.87	(\$24.19)	-5.6%						
(39)	198	\$407.68	\$452.82	(\$26.29)	-5.8%						
(40)	Average Customer	\$426.53	\$452.82	(\$26.29)	-5.8%						
(41)	228	\$433.73	\$471.62	(\$27.89)	-5.9%						
(42)	244	\$462.98	\$492.88	(\$29.91)	-6.1%						
(43)	258	\$479.78	\$511.42	(\$31.64)	-6.2%						
(44)	275	\$500.18	\$534.11	(\$33.93)	-6.4%						
(45)	288	\$515.85	\$551.21	(\$35.36)	-6.4%						

Difference due to:

(31)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	ISR	EE	LIHEAP	GET
(32)											
(33)											
(34)											
(35)	140	\$337.99	\$334.99	(-\$11.29)	-3.3%						
(36)	155	\$336.06	\$375.05	(\$12.67)	-5.1%						
(37)	171	\$375.28	\$396.28	(\$14.05)	-5.3%						
(38)	184	\$390.87	\$413.34	(\$14.94)	-5.4%						
(39)	198	\$407.68	\$431.87	(\$16.10)	-5.6%						
(40)	Average Customer	\$426.53	\$452.82	(\$26.29)	-5.8%						
(41)	228	\$433.73	\$471.62	(\$18.60)	-5.9%						
(42)	244	\$462.98	\$492.88	(\$19.97)	-6.1%						
(43)	258	\$479.78	\$511.42	(\$21.13)	-6.2%						
(44)	275	\$500.18	\$534.11	(\$22.71)	-6.4%						
(45)	288	\$515.85	\$551.21	(\$23.63)	-6.4%						

Difference due to:

Residential Non-Heating Low Income:

(46)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	ISR	EE	LIHEAP	GET
(47)											
(48)											
(49)											
(50)	140	\$315.58	\$332.58	(\$17.00)	-5.1%						
(51)	155	\$332.97	\$351.96	(\$18.99)	-5.4%						
(52)	171	\$351.46	\$372.46	(\$21.00)	-5.6%						
(53)	184	\$366.46	\$388.93	(\$22.47)	-5.8%						
(54)	198	\$382.64	\$406.83	(\$24.19)	-5.9%						
(55)	Average Customer	\$400.78	\$427.07	(\$26.29)	-6.2%						
(56)	228	\$417.33	\$445.22	(\$27.89)	-6.3%						
(57)	244	\$435.85	\$465.76	(\$29.91)	-6.4%						
(58)	258	\$452.02	\$483.66	(\$31.64)	-6.5%						
(59)	275	\$471.65	\$505.58	(\$33.93)	-6.7%						
(60)	288	\$486.74	\$522.10	(\$35.36)	-6.8%						

Difference due to:

(46)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	ISR	EE	LIHEAP	GET
(47)											
(48)											
(49)											
(50)	140	\$315.58	\$332.58	(\$11.29)	-3.3%						
(51)	155	\$332.97	\$351.96	(\$12.67)	-3.4%						
(52)	171	\$351.46	\$372.46	(\$14.05)	-3.6%						
(53)	184	\$366.46	\$388.93	(\$14.94)	-3.8%						
(54)	198	\$382.64	\$406.83	(\$16.10)	-3.9%						
(55)	Average Customer	\$400.78	\$427.07	(\$26.29)	-6.2%						
(56)	228	\$417.33	\$445.22	(\$18.60)	-6.3%						
(57)	244	\$435.85	\$465.76	(\$19.97)	-6.4%						
(58)	258	\$452.02	\$483.66	(\$21.13)	-6.5%						
(59)	275	\$471.65	\$505.58	(\$22.71)	-6.7%						
(60)	288	\$486.74	\$522.10	(\$23.63)	-6.8%						

Difference due to:

C & I Small:			Difference due to:									
(61)	(62)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	ISR	EE	LIHEAP	GET
(63)												
(64)			\$1,384.27	\$1,493.48	(\$109.21)	-7.3%						
(65)			\$1,487.11	\$1,607.80	(\$120.69)	-7.5%						
(66)			\$1,500.18	\$1,722.22	(\$132.04)	-7.7%						
(67)			\$1,691.94	\$1,835.84	(\$143.91)	-7.8%						
(68)			\$1,759.08	\$1,945.21	(\$156.12)	-8.0%						
(69)			Average Customer	\$2,050.70	(\$167.59)	-8.2%						
(70)			\$1,446	\$1,977.91	(\$179.21)	-8.3%						
(71)			\$1,542	\$2,074.12	(\$191.11)	-8.4%						
(72)			\$1,635	\$2,167.34	(\$202.62)	-8.5%						
(73)			\$1,730	\$2,261.53	(\$214.26)	-8.7%						
(74)			\$1,825	\$2,355.73	(\$226.15)	-8.8%						
(75)												

C & I Medium:			Difference due to:									
(76)	(77)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	ISR	EE	LIHEAP	GET
(78)												
(79)			\$9,008.06	\$10,129.22	(\$1,121.16)	-11.1%						
(80)			\$9,884.10	\$11,125.73	(\$1,241.63)	-11.2%						
(81)			\$10,758.66	\$12,120.69	(\$1,362.03)	-11.2%						
(82)			\$11,634.65	\$13,117.48	(\$1,482.82)	-11.3%						
(83)			\$12,511.05	\$14,114.68	(\$1,603.63)	-11.4%						
(84)			Average Customer	\$13,387.73	\$15,112.22	\$-11.4%						
(85)			\$12,217	\$1,724.49								
(86)			\$13,073	\$14,264.46	(\$1,845.19)	-11.5%						
(87)			\$13,928	\$15,139.95	(\$1,966.20)	-11.5%						
(88)			\$14,782	\$16,015.05	(\$2,086.65)	-11.5%						
(89)			\$15,637	\$16,890.56	(\$2,207.36)	-11.6%						
(90)			\$16,492	\$17,766.57	(\$2,327.89)	-11.6%						

Difference due to:

(91)	(92)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	ISR	EE	LIHEAP	GET
(93)	(94)		\$45,315.46	\$47,623.47		-4.8%	(\$2,058.07)	(\$180.70)	\$0.00	\$0.00	\$0.00	(\$69.24)
(95)	41,066	\$49,900.93	\$52,517.11	(\$2,308.01)	-4.9%	(\$2,279.32)	(\$200.17)	\$0.00	\$0.00	\$0.00	\$0.00	(\$76.69)
(96)	45,488	\$54,606.57	\$57,411.37	(\$2,804.80)	-4.9%	(\$2,501.07)	(\$219.59)	\$0.00	\$0.00	\$0.00	\$0.00	(\$84.14)
(97)	49,910	\$59,233.85	\$67,307.09	(\$3,053.25)	-4.9%	(\$2,722.59)	(\$239.06)	\$0.00	\$0.00	\$0.00	\$0.00	(\$91.60)
(98)	54,334	\$63,900.32	\$67,202.50	(\$3,302.19)	-4.9%	(\$2,944.60)	(\$258.52)	\$0.00	\$0.00	\$0.00	\$0.00	(\$99.07)
(99)	58,757	\$68,545.94	\$72,096.34	(\$3,550.40)	-4.9%	(\$3,165.89)	(\$278.00)	\$0.00	\$0.00	\$0.00	\$0.00	(\$106.51)
(100)	Average Customer											
(101)	67,600	\$73,190.38	\$76,389.18	(\$3,798.80)	-4.9%	(\$3,387.39)	(\$297.45)	\$0.00	\$0.00	\$0.00	\$0.00	(\$113.96)
(102)	72,023	\$77,846.83	\$81,384.28	(\$4,047.45)	-4.9%	(\$3,609.15)	(\$316.88)	\$0.00	\$0.00	\$0.00	\$0.00	(\$121.42)
(103)	76,447	\$82,484.80	\$86,780.92	(\$4,296.12)	-5.0%	(\$3,830.88)	(\$336.36)	\$0.00	\$0.00	\$0.00	\$0.00	(\$128.88)
(104)	80,870	\$87,131.22	\$91,675.78	(\$4,544.57)	-5.0%	(\$4,052.39)	(\$355.84)	\$0.00	\$0.00	\$0.00	\$0.00	(\$136.34)
(105)	85,292	\$91,776.75	\$96,569.74	(\$4,792.99)	-5.0%	(\$4,273.92)	(\$375.28)	\$0.00	\$0.00	\$0.00	\$0.00	(\$143.79)

C & IHLF Large:

(106)	(107)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	ISR	EE	LIHEAP	GET	
(108)	(109)												
(110)	50,411	\$49,800.52	\$55,183.17	(\$5,382.65)	-9.8%	(\$4,883.41)	(\$337.76)	\$0.00	\$0.00	\$0.00	\$0.00	(\$161.48)	
(111)	55,841	\$54,930.58	\$66,893.18	(\$5,962.60)	-9.8%	(\$5,409.59)	(\$374.13)	\$0.00	\$0.00	\$0.00	\$0.00	(\$178.88)	
(112)	61,273	\$60,002.38	\$66,604.92	(\$6,542.54)	-9.8%	(\$5,935.74)	(\$410.52)	\$0.00	\$0.00	\$0.00	\$0.00	(\$196.28)	
(113)	66,699	\$65,189.01	\$72,310.83	(\$7,121.82)	-9.8%	(\$6,461.27)	(\$446.90)	\$0.00	\$0.00	\$0.00	\$0.00	(\$213.65)	
(114)	72,129	\$70,319.05	\$78,020.86	(\$7,701.81)	-9.9%	(\$6,987.48)	(\$483.28)	\$0.00	\$0.00	\$0.00	\$0.00	(\$231.05)	
(115)	Average Customer	77,558	\$75,448.19	\$83,729.76	(\$8,281.57)	-9.9%	(\$7,513.48)	(\$519.64)	\$0.00	\$0.00	\$0.00	\$0.00	(\$248.45)
(116)	82,989	\$80,578.38	\$89,439.84	(\$8,861.46)	-9.9%	(\$8,039.60)	(\$556.02)	\$0.00	\$0.00	\$0.00	\$0.00	(\$265.84)	
(117)	88,416	\$85,705.86	\$95,146.85	(\$9,440.99)	-9.9%	(\$8,565.38)	(\$592.38)	\$0.00	\$0.00	\$0.00	\$0.00	(\$283.23)	
(118)	93,847	\$90,836.77	\$100,837.71	(\$10,020.94)	-9.9%	(\$9,091.53)	(\$628.78)	\$0.00	\$0.00	\$0.00	\$0.00	(\$300.63)	
(119)	99,275	\$95,955.10	\$106,365.82	(\$10,600.72)	-9.9%	(\$9,617.56)	(\$665.14)	\$0.00	\$0.00	\$0.00	\$0.00	(\$318.02)	
(120)	104,705	\$101,095.20	\$112,275.62	(\$11,180.42)	-10.0%	(\$10,143.47)	(\$701.54)	\$0.00	\$0.00	\$0.00	\$0.00	(\$335.41)	

Difference due to:

C & ILLF Extra-Large:

Difference due to:

(121)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	ISR	EE	LIHEAP	GET
(122)											
(123)											
(124)											
(125)	174,357	\$160,691.89	\$170,930.36	(\$10,238.47)	-6.0%	(\$9,094.42)	(\$836.90)	\$0.00	\$0.00	\$0.00	(\$307.15)
(126)	193,136	\$177,431.48	\$188,772.87	(\$11,341.38)	-6.0%	(\$10,074.09)	(\$927.05)	\$0.00	\$0.00	\$0.00	(\$340.24)
(127)	211,912	\$194,168.70	\$206,612.72	(\$12,444.02)	-6.0%	(\$11,053.52)	(\$1,017.18)	\$0.00	\$0.00	\$0.00	(\$373.32)
(128)	230,688	\$210,906.48	\$224,452.66	(\$13,546.19)	-6.0%	(\$12,032.50)	(\$1,107.30)	\$0.00	\$0.00	\$0.00	(\$406.39)
(129)	249,466	\$227,645.22	\$242,294.57	(\$14,649.35)	-6.0%	(\$13,012.45)	(\$1,197.42)	\$0.00	\$0.00	\$0.00	(\$439.48)
(130)	Average Customer	268,243	\$244,383.08	(\$261,134.86)	-6.1%	(\$13,991.67)	(\$1,287.56)	\$0.00	\$0.00	\$0.00	(\$472.55)
(131)	287,018	\$261,119.69	\$277,974.12	(\$16,854.43)	-6.1%	(\$14,971.11)	(\$1,377.69)	\$0.00	\$0.00	\$0.00	(\$505.63)
(132)	305,796	\$277,859.06	\$295,815.89	(\$17,956.84)	-6.1%	(\$15,950.32)	(\$1,467.81)	\$0.00	\$0.00	\$0.00	(\$538.71)
(133)	324,573	\$294,587.09	\$313,656.54	(\$19,059.45)	-6.1%	(\$16,929.74)	(\$1,557.93)	\$0.00	\$0.00	\$0.00	(\$571.78)
(134)	343,350	\$311,355.05	\$331,497.47	(\$20,162.42)	-6.1%	(\$17,909.47)	(\$1,648.08)	\$0.00	\$0.00	\$0.00	(\$604.87)
(135)	362,127	\$328,073.04	\$349,337.86	(\$21,264.81)	-6.1%	(\$18,888.67)	(\$1,738.20)	\$0.00	\$0.00	\$0.00	(\$637.94)

C & IHLF Extra-Large:

Difference due to:

(136)	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	Base DAC	ISR	EE	LIHEAP	GET
(137)											
(138)											
(139)											
(140)	447,421	\$385,267.43	\$437,423.68	(\$52,156.25)	-11.9%	(\$48,130.74)	(\$2,460.82)	\$0.00	\$0.00	\$0.00	(\$1,564.69)
(141)	495,605	\$426,190.47	\$483,963.70	(\$57,773.23)	-11.9%	(\$53,314.21)	(\$2,725.82)	\$0.00	\$0.00	\$0.00	(\$1,733.20)
(142)	543,789	\$467,114.22	\$550,504.21	(\$63,389.99)	-11.9%	(\$58,497.45)	(\$2,990.84)	\$0.00	\$0.00	\$0.00	(\$1,901.70)
(143)	591,972	\$508,036.50	\$577,043.21	(\$69,006.71)	-12.0%	(\$63,680.69)	(\$3,255.82)	\$0.00	\$0.00	\$0.00	(\$2,070.20)
(144)	640,155	\$548,938.67	\$623,582.15	(\$74,623.48)	-12.0%	(\$68,863.94)	(\$3,520.84)	\$0.00	\$0.00	\$0.00	(\$2,238.70)
(145)	Average Customer	688,340	\$589,882.88	\$670,123.37	-\$12.0%	(\$74,047.39)	(\$3,785.89)	\$0.00	\$0.00	\$0.00	(\$2,407.21)
(146)	736,523	\$630,805.48	\$716,662.74	(\$85,857.26)	-12.0%	(\$79,230.66)	(\$4,050.88)	\$0.00	\$0.00	\$0.00	(\$2,575.72)
(147)	784,708	\$671,729.25	\$763,203.48	(\$91,474.24)	-12.0%	(\$84,414.11)	(\$4,315.90)	\$0.00	\$0.00	\$0.00	(\$2,744.23)
(148)	832,891	\$712,652.25	\$809,743.24	(\$97,090.99)	-12.0%	(\$89,597.35)	(\$4,580.91)	\$0.00	\$0.00	\$0.00	(\$2,912.73)
(149)	881,074	\$753,574.45	\$856,282.21	(\$102,707.76)	-12.0%	(\$94,780.60)	(\$4,845.93)	\$0.00	\$0.00	\$0.00	(\$3,081.23)
(150)	929,259	\$794,499.03	\$902,823.76	(\$108,324.73)	-12.0%	(\$99,964.06)	(\$5,110.93)	\$0.00	\$0.00	\$0.00	(\$3,249.74)

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
GAS COST RECOVERY FILING
WITNESS: ANN E. LEARY
SEPTEMBER 2, 2014**

**Attachment AEL-5
FT-2 Demand Rate**

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Summary of Marketer Transportation Factors

Line

<u>No.</u>	<u>Item</u>	<u>Reference</u>	<u>Proposed</u>	<u>Billing Units</u>
	(a)	(b)	(c)	(d)
(1)	FT-2 Demand	AEL-5 pg 2, Line (20)	\$8.7038	Dth/Mth
(2)	Weighted Average Upstream Pipeline Transportation Cost	EDA - 4	\$0.4080	Per Dth of capacity

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Calculation of FT- 2 Demand Rate (per Dth)

Line No.	<u>Description</u>	Source		
		Reference (b)	Line # (c)	Amount (d)
(a)		AEL-1 pg 4	Line (59)	\$15,825,143
(1)	Storage Fixed Costs			
Less:				
(2)	LNG Demand to DAC	AEL-1 pg 2	Line (5)	(\$1,488,790)
(3)	Credits			\$0
(4)	Refunds			\$0
(5)	Total Credits	sum [(2):(4)]		(\$1,488,790)
Plus:				
(6)	Supply Related LNG O&M Costs	Dkt 4323		\$575,581
(7)	Working Capital Requirement	AEL-1 pg 9	Line (47)	\$84,993
(8)	Total Additions	sum [(6):(7)]		\$660,574
(9)	Total Storage Fixed Costs	(1) + (5) + (8)		\$14,996,928
Inventory Financing				
(10)	Underground	AEL-1 pg 10	Line (12)	\$1,005,487
(11)	LNG	AEL-1 pg 10	Line (22)	\$254,509
(12)	Total Storage Fixed Costs	(9) + (10) + (11)		\$16,256,924
(13)	LNG Storage MDQ (Dth)	AEL-1 pg 12	Line (14)	118,286
(14)	AGT	EDA-4		31,637
(15)	TENN	EDA-4		10,836
(16)	Total Storage MDQ	sum [(13):(15)]		160,759
(17)	Storage MDQ X 12 Months	(16) *12		1,929,108 MDCQ Dth
(18)	FT- 2 Demand Rate	(12) / (17)		<u>\$8.4271</u> per MDCQ Dth
(19)	Uncollectible %	Docket 4323		3.18%
(20)	Total FT-2 Demand Rate adjusted for Uncollectibles	(18) / [(1 - (19))]		\$8.7038 per MDCQ Dth

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Calculation of FT-2 Demand Costs

Line No.	Description	Source		
		Reference (b)	Line # (c)	Amount (d)
(1)	FT- 2 Demand Rate	AEL-5 pg 2	Line (18)	\$8.4271 per MDCQ Dth
(2)	MDQ-U	Mkter MDQ Forecast		3,744
(3)	MDQ-P	Mkter MDQ Forecast		11,793
(4)	Marketer MDQs	(2) + (3)		15,537 Dth/Mth
(5)	FT-2 Storage Costs	(1) x (4) x 12 Months		\$1,571,148

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
GAS COST RECOVERY FILING
WITNESS: ANN E. LEARY
SEPTEMBER 2, 2014**

**Attachment AEL-6
FT-2 Capacity Allocator Percentages**

RI Gas Company
Capacity Assignment Table

Line No.	Load (a)	Rate Class (b)	% of Peak Day Requirement				% of Total Capacity		
			Pipeline (c)	Storage (d)	Peaking (e)	Total (f)	Pipeline (g)	Storage (h)	Peaking (i)
(1)	HLF	Res - Non-Heating	60.0%	10.0%	30.0%	100.0%		2.5%	2.3%
(2)	HLF	Res - Non-Heating LI	60.0%	10.0%	30.0%	100.0%			2.3%
(3)	LLF	Res - Heating	50.0%	12.0%	38.0%	100.0%	56.4%	58.3%	58.3%
(4)	LLF	Res - Heating LI	50.0%	12.0%	38.0%	100.0%			
(5)	LLF	Small	50.0%	12.0%	38.0%	100.0%	8.4%	9.1%	9.1%
(6)	LLF	Med	50.0%	12.0%	38.0%	100.0%	9.6%	9.4%	9.4%
(7)	LLF	Large Low Load	50.0%	12.0%	38.0%	100.0%	2.2%	2.4%	2.4%
(8)	HLF	Large High Load	60.0%	10.0%	30.0%	100.0%	0.8%	0.6%	0.6%
(9)	LLF	XL Low Load	50.0%	12.0%	38.0%	100.0%	0.3%	0.2%	0.2%
(10)	HLF	XL High Load	60.0%	10.0%	30.0%	100.0%	0.6%	0.0%	0.0%

(11)	HLF	High Load Factor	60.0%	10.0%	30.0%	100.0%
(12)	LLF	Low Load Factor	50.0%	12.0%	38.0%	100.0%
(13)		Total	51.0%	12.0%	37.0%	100.0%

10.4%	7.3%	7.3%
89.6%	92.7%	92.7%
100.0%	100.0%	100.0%

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. 4520
GAS COST RECOVERY FILING
WITNESS: ANN E. LEARY
SEPTEMBER 2, 2014**

**Attachment AEL-7
Marketer Reconciliation**

2012-13 & 2013-14 Annual Marketer Reconciliation

Line No.	Description	# of days	Reference	Tetco EIA /Algonquin	Tetco WLA /Algonquin	Tennessee Zone 1 to NEGIC	Tetco STEX /Algonquin	Algonquin @ Lambertville, NJ	Columbia (Maumee/Dowmington)	Total
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
2013-2014 Marketer Reconciliation										
(1)	MDCQ by Month									
(1)	Nov-13	30		194,970	254,970		284,970	110,940	70,710	921,480
(2)	Dec-13	31		201,500	263,500		294,500	115,227	73,718	5,053
(3)	Jan-14	31		201,500	263,500		294,500	119,598	82,460	953,498
(4)	Feb-14	28		182,000	238,000		266,000	107,548	73,080	4,991
(5)	Mar-14	31		201,469	263,469		294,500	117,893	78,337	871,052
(6)	Apr-14	30		195,000	255,000		285,000	114,990	77,700	4,836
(7)	May-14	31		201,500	263,500		294,500	118,296	78,802	960,504
(8)	Jun-14	30		195,000	255,000		285,000	106,710	61,890	932,310
(9)	Jul-14	31		201,500	263,500		294,500	110,639	65,441	961,403
(10)	Aug-14	31		201,500	263,500		294,469	114,142	71,796	4,464
(11)	Sep-14	30		195,000	255,000		284,970	110,460	69,480	949,871
(12)	Oct-14	31		201,500	263,500		294,469	114,142	71,796	4,464
(13)	Total		sum((1)(12))	2,372,439	3,102,439		3,467,378	1,360,585	875,210	\$6,075
										11,234,126
Approved										
(14)	System Average		Dkt 4346 EDA-4	\$0.9383	\$0.9383		\$0.9383	\$0.9383	\$0.9383	\$0.9383
(15)	Path		Dkt 4346 EDA-4 (14) - (15)	\$0.9245 \$0.0138	\$1.0264 (\$0.0881)		\$1.1663 (\$0.2280)	\$1.2195 (\$0.2812)	\$0.2744 \$0.6639	\$0.3702 \$0.5681
Revised										
(17)	System Average			\$0.9359	\$0.9359		\$0.9359	\$0.9359	\$0.9359	\$0.9359
(18)	Path			\$0.9253 \$0.0106	\$1.0272 (\$0.0913)		\$1.1502 (\$0.2143)	\$1.2203 (\$0.2844)	\$0.2744 \$0.6615	\$0.3768 \$0.5591
(19)	Credit/Surcharge									
(20)	Variance- approved Surcharge/Credit vs. Revised Surcharge/Credit		(19) - (16)	(\$0.0032)	(\$0.0032)		\$0.0137	(\$0.0024)	(\$0.0090)	
(21)	Annual MDCCQ		(13)	2,372,439	3,102,439		3,467,378	1,360,585	875,210	\$6,075
(22)	2012-13 Marketer Reconciliation Adjustment		(20) * (21)	(\$7,592)	(\$9,928)		(\$4,354)	(\$2,101)	(\$505)	\$23,024

